

An examination of spatial qualities in HEALING ENVIRONMENT
related to Ayurveda with special reference to "spa" in Hotels

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The Dissertation Presented to the Department of Architecture,
 University of Moratuwa,
 Sri Lanka
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DECLARATION



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I declare that this dissertation represents my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or report submitted to this University or to any other institution for a degree, diploma or other qualification.

A handwritten signature in black ink, appearing to read 'Ekanayake.E.M.D.B.', written over a horizontal dotted line.

Ekanayake.E.M.D.B

A handwritten signature in black ink, appearing to read 'Archt. Sithumini Rathnamalala', written over a horizontal dotted line.

Archt. Sithumini Rathnamalala
Internal supervisor

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INTRODUCTION

Topic explanation

In the ancient time **“The pearl in the Indian Ocean”**, Ceylon was a haven or resting place for the merchants and sellers who sailed across the Indian Ocean. This paradise served their every need such as care for the sick, the finest gems and other dedications that they have never tested. Among those the natives offer, the special treatment and care given was unique and was called **“Ayurveda”**. It is not just a mode of treatment; it's an **art of living**. Ayurveda stresses leading a life **blended with nature** so as to bring happiness in life and maintenance of **good health**.

Up to now this traditional method of caring has come a long way and had evolved through time, as in the ancient time still people from various countries seek the unbelievable power of healing in Ayurveda. At present there are uncountable numbers of places in Sri Lanka who offer Ayurvedic care for Local as well as foreigners.

From birth to death most of are spend in building it's become part of life according with the time scale. So the building should have expressions.

“The feelings which are proper to be expressed in Architecture are of two kinds. The first kinds, feeling for the actual stuff of Architecture, materials, structure, colour, function, space, etc. The second kind is feeling for, and sympathy with, the people who will use and live with the building”¹

Concentration of the critical issues the spaces within the building should not have expressions. Almost every tourist Hotels has own Ayurvedic therapy centers, but the

expression of the environment is not created according to Ayurveda principles and not gains the expression of healing. And the old elite houses which convert in to Ayurvedic therapy centers couldn't fulfill the expectations and offer the benefits of care to the customers due to inappropriate environment without "healing".

Healing is an intensely personal, subjective experience involving a reconciliation of the meaning an individual ascribes to distressing events with his or her perception of wholeness as a person. The Healing environment is an alternative architectural & interior design service using materials, geometry & placement to create spatial changes resulting in a stress free environment.

Need of the Study

In present day society, Ayurvedic medicine becomes a global market, but most of the people may not consider about Ayurveda and its philosophy.

In some buildings, this relationship is vital particularly the buildings which are primarily for complete health care facility. It has been neglected and does just a collection of Ayurvedic functions and materials and designed in a careless manner.



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The physical problem arises when continue this type of buildings. It needs to respond climatic factors, environmental problems, budget and ancient Ayurvedic knowledge etc...

When promoting the cultural-tourism in Sri Lanka, Ayurveda need to attach in proper manner with not destroy there qualities. But that disappear the relationship between the building and the user. The major duty of the Architect is to create good buildings which will make its user to live and healing from the space and possible in their world at the peak of healing environment.

Intention of the study

This study is to highlight the healing environment and correlation between the natures of Ayurveda. Discuss the Architectural space in related to achieve healing environment to user oriented. The quality of healing is subjective ones and also try to understand the spatial qualities need to gain healing environment. In all these will attempt to examine a set of examples which has come up through responding correctly with the view to justify the relationship.

Scope and Limitations of the study

To examine the healing environment, the spatial qualities regard a major action and it will focus to achieve by the understanding of Ayurvedic elements. And only discuss about the spatial relationship in the Architectural space.

The bases of select the cases are limit the scope of the study. It may categorize to the adaptation of Ayurveda to hotel environment.

- Using the function of Ayurveda as a major theme of the place
- Adaptation of Ayurveda respond to life style of the hotel environment
- Changing the attitude of Ayurveda in modern context

In case of the time factor to limit the study, focus to spatial qualities only. It may not concern about the user group, surrounding environment, comfort level etc.

Methodology

The examination of spatial qualities in healing environment and Ayurvedic elements similarly can be identified. The chapter one depicts to identify the qualities of healing in the Architectural space and define the healing as an expressive quality parallel to Architectural space.

Formation of theories in relation Ayurvedic principles, the study begins. The second chapter will discuss generally the relationship between the Ayurvedic principles and healing environment.

The final chapter of this study attempt to analyze the way of achieve healing environment with reference to the Architectural elements and spatial progression. Each will be studied under the relationship of Ayurvedic principles, but more focus to architecture.

In order to illustrate the relationship, examples predominantly in Sri Lanka are taken in to consideration.



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CHAPTER ONE: QUALITY OF HEALING IN ARCHITECTURE

1.1 Space and its significance

"Space constantly encompasses our being. Through the volume of space, we move, see forms and objects, hear sounds, feel breezes, smell the fragrances of a flower garden in bloom" -2

Space is here, space is there, space is everywhere: vast, profound, unlimited, and boundless. Man lives in space, all beings live in space all things exist in space. It is nothingness that absorbs every thing tangible, intangible, visible, invisible, animate, inanimate...., in to. It is nothing that is enlivened with man's feelings, emotions and inner impulses.

Man experiences space. First, it is through the physical dimensions; length, breadth and height. It is a measuring or a quantitative experience. He captures the volume, the space contain within. In this act, he invariably relates him self with it and the more important qualitative experience begins. Every such space becomes meaningful in this process, in this man – space interactions. Some of them are universal. Some differ from tribe to tribe, society to society, culture to culture, and person to person. Man space interactions being when he grasps these encoded meanings.

1.1.1 Space as a part of environment

"Environment" has become an often used word in all spheres of activity in the present day society. Similarly, the reasons that it has captured such wide attention also vary from one context to another, depending on different interpretations and importance of each interpretation. Therefore there exists a definition for **"Environment"**.

In architecture too, Environment has necessarily been a major component, not only because architecture is always created with Environment as a design parameter or a determinant factors, - be immediate or not-so-immediate, but also because the environment is largely affected ' and changed by the very product of architecture itself. In this sense, Environment can be broadly defined as "Space used by Man", in the process of human activities



including architecture. It includes spaces already in existence and spaces newly created by Man.

Such a broad definition should be reduced to detail for the purpose of understanding the depth of an Environment. It is best first to understand by analyzing what attributes to a space. There are certain elements of space which categorized as solids & voids, volumes, textures, form & shape, geometrical patterns etc... They are measurable in **quantitative** terms and are almost static which are not susceptible to flexibility within considerable time.

Different accumulation patterns of physical elements bring forward another dimension to what we sense of a space. Such patterns are exclusively dependent on how they are being organized: either natural, man-made or both.

Whatever the outcome may be, the levels we sense these patterns are intangible and non-physical. They are **qualitative** and are not necessarily apparent in the

physical components we see and quantity. Such qualitative dimension always depends on who experiences its and how it is being experienced to which level. Therefore they are rather flexible and subjective.

Perception of a "space" in quantitative and qualitative differentiation is essential in understanding an environment, for its spaces we directly relate our selves no matter how different they are perceived and experienced individually. Physical quantitative elements are the sources of generating qualitative aspects of as a space.

1.1.2 Qualitative dimensions of space

Often a space is experienced only by its physical dimensions. The experience of only quantitative elements

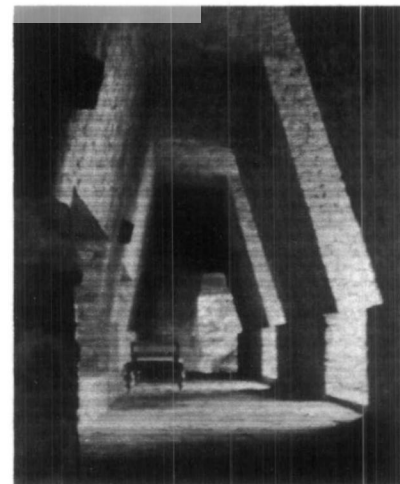


Fig 01: Experience the spatial character in the built environment

renders one's mind to a superficial judgment of a space. It is what one often gathers immediately of a "space" the first step of an experience. Remaining at this level is crucial since it lacks further experience since a space contains both quantitative and qualitative attributes. Limiting one's perception of a space only to what is immediately seen becomes a fraction of the total potential experience. The real significance of quantitative aspects is that they are mere generators, or indicators of many qualitative aspects.

When a form and its shape in a space are first seen, certain images begin to establish in mind. These images we relate to either past experiences or to universally accepted reactions. Through such experiences imagination is activated and certain emotions follow. To these emotions one immediately reacts. Thus the experience of a space becomes complete.

The procedure is not simple, but rather complex; since spaces differ within a wide range of different contexts. However, it is clear that each different experience of a space follows this sequence.

1.1.2.1 Quality of Architectural space



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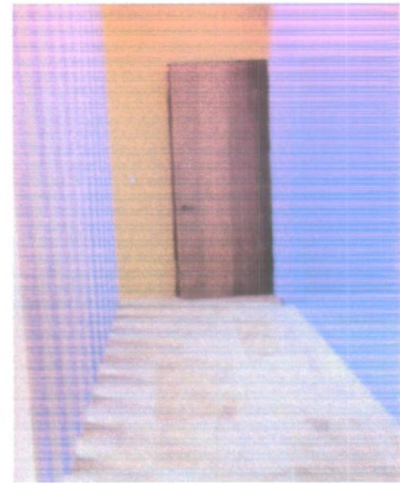
The definition of an Architectural Space is that of a space which is deliberately created to provide either a fresh meaning or to emphasize an existing meaning in a lived-in space. Since buildings are consciously created for people who experience them. Architectural spaces are much more than mere aesthetic elements (as generally understood as the major output of architecture), but rather, they are containers of expression and meaning.

People of a particular cultural group experience particular existential spaces. Within this framework, they also experience the spaces created by architecture. They are the 3-dimensional, "physical" spaces within and among buildings. Their consistency and inter-relationships bear significances which are of importance, as volumes created are not mere physical elements of spaces. They are rather, clear indicators of spatial expressions contained within.

People's individual ideologies may vary from each other's in understanding Architectural Space. The experience of an Architectural space would not always be a shared one in an existential space, yet, "the possibility of achieving them appears to be greatest where

abstract ideas of spaces are most highly developed."

People, by their perceptive attitudes, interpretations and acceptances, experience the space created by architecture in relation to their society. This is even more emphasized as Architectural spaces are products of the people themselves. The meanings and expressions created by such spaces are the values of that society. Therefore Architectural spaces become the **"centre of human associations and significances"** within a society.



What is important is that Architectural Space is man-made and created with deliberate purpose, while all other spaces occur naturally. Therefore there exists a vital responsibility for Architects to understand the full essence of a space created by him towards its meaning and purposeful experience.



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The Architectural space provides both utility it is meant for, and expression it generates. Such expressions communicate with observers for what that space really contains in its depth and what meaning it gives, they establish an identity of a space created by Architecture, and forms a bond between man and the Architectural space.

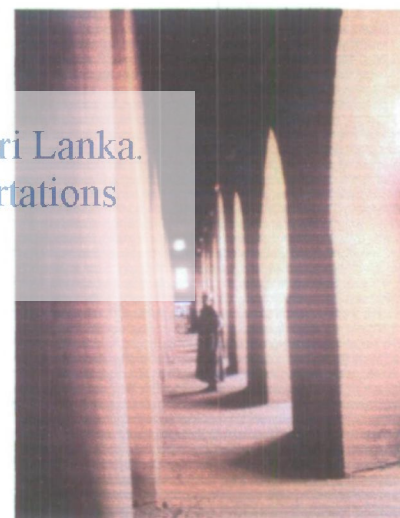


Fig 02: Architectural space create by man with its meaning

1.2 Expressive qualities in Architecture

Architectural space unfolds a journey in to man by its array of spaces. In it, one space flows in to another, making spatial relationship, organization and movement of spaces. Each space, coloured by man's feelings and emotions, has its own vigor, autonomy and rightful place in the whole fabric of spaces. This fabric, although consists of many spaces within it, is one spatial entity having a major theme of expressions at

its core. Each of the many spaces within this entity, while having its own theme of expression, at the same time is essentially bound to its major theme. It is form that encapsulates this whole spatial organization. In doing so, the form too makes expressions. It is a 3-d composition, comprised of many built components.

Rudolf Arnheim says, the capacity to perceive the expressive qualities in Architecture is hampered by a civilization that favours practical utility in a purely physical sense and hesitates to acknowledge the existence of phenomena that cannot be measured or counted. -4

Expression in its basic nature is the "**live ness**". Therefore if somebody hesitates to talk about expressions in buildings, naturally he categorizes all buildings as dead.

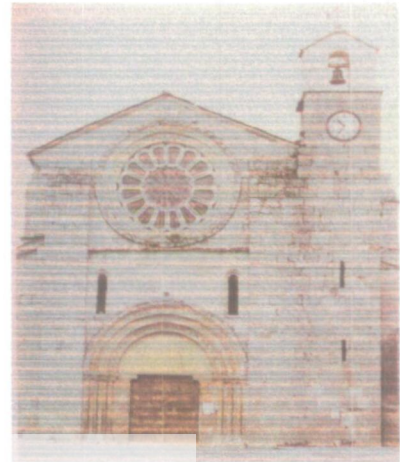


Fig 03: expression of live building

The two key concepts in architecture, which are **Function** and **Expression**, are equally important. Do people experience such feelings with buildings? Consider the following theory. **Calm** things or **sad** things or **noble** things all arouse in us certain feelings and, when one of these feelings is aroused in us by a building.

When a person enters a temple or a church, most people get a special feeling of **peace or devotion**. Similar feeling would not be felt in another place such as a recreational place. Here the feeling would be "**Cheerful**". This would be different in an office building. Through these specific feelings, people consciously identify certain characters to buildings.

The buildings as "**imbued with character**" and this **particular character** are not only immediate part of the way the building looks, but also, observable in principle by any one. The intimacy of the connection between a building and its character is the expression. -3



Fig 04: Cheerful character in recreational space

That means the character of a building is identified through its expressions. The traditional Preaching Hall or "**Bana Maduwa**" of a Buddhist Temple is a good example of the above. This building, with its short walls and four entrances denoting the four directions attracts our attention to square floor in the centre called "**Dharmasana**" and gives us the message of "**come close**". Its tiered roof and thin pinnacle gives a feeling of '**lightness**' of being not '**earth bound**'.



Fig 05: Express the inviting quality in Preaching Hall

The form and shape of architecture has been interpreted differently by many theorists. Form is considered as the three dimensional sense of the Architecture, which is not superficial or visual. Form is a result of a combination of some basic factors in Architecture, namely character, composition and location on site. Shape can be considered as the visual experience of a particular architecture, which is superficial and external. The elements of shape, which contributes to this visual experience, are external skin, roof, openings, texture, colours, etc.



Fig 06: the composition expresses the "Religious" character and form

1.3 "Healing" as an expressive quality

Man uses one, several or all of his five senses: the sight, hearing, smell, taste and the touch in perceiving. These senses are invariably linked with the sixth sense, **the mind**. The expressive quality can be identified with five senses and mind connected. So the expressive quality of healing directly related to the mind generator. Human beings express the "**quality of Healing**", in the sense of manifesting or giving outward evidence of their **emotional states**, even their emotional dispositions, by bodily and visible signs in particular by the set of their features by gestures, posture, vocalizations, the rhythms of their movements, and so on.



Fig 07: Form and Texture contribute to the shape and expression

However, healing voice is an ambiguous indicator of emotion, but considered in combination with other facts, such as facial expression and bodily movements, one can exactly judge the other's emotions with the quality of healing. For example, the Buddhist monk who preaches "Bana" should have the sound healing expressions to get other people's attention.

In other words, expression of healing contributes to judge a person's character. Character is his "inner person", "mind" or "thoughts". It is the reality of his self that is expressed to others. It is his "form". Form is not superficial or visual. A person's appearance, the way he dresses, the colour, texture, also confirms the sensed Healing expressions. It is his "Shape", which is the attachment to his body. For example, a Buddhist monk confirms the sensual expressions with his simple yellow robe, the shaven head, beard, moustache, eye brows, and so on which express the spiritual healing.

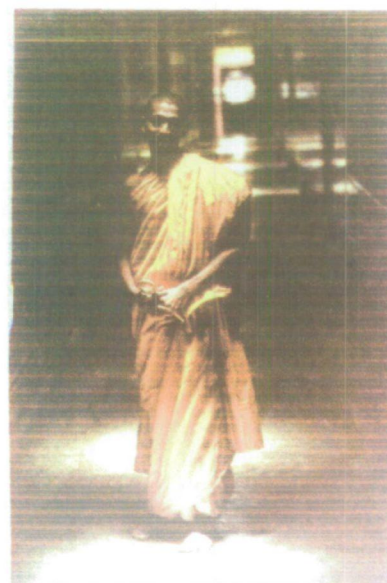


Fig 08: healing express by personal character

The expressive quality of "healing" should seen not only human body but also in the physical **objects** such as large tree with shaded from branches, Religious object(Dagaba, church etc), Clear water plot, Natural light spot etc.



Fig 09: lighting use as a object to express healing

1.3.1 Definition of Healing

Healing..... It hasn't a destination, it is a journey. Healing is life long, natural process of man kind. It is an intensely **personal, subjective experience** involving compromise of the meaning an individual ascribes to

distressing events with his or her perception of wholeness as a person. Almost everyone has some measure of healing gift. A mother kissing away a child's hurt is a healer. However, it is much like playing the piano. Some are born gifted and do it well with little or no training or effort. Some become good at it with practice. Others, even with good intentions and diligent studies, remain mediocre.

According to the Wikipedia, Healing defines as, it is the process whereby the cells in the body regenerate and repair to reduce the size of a damaged or necrotic area. Healing incorporates both the removal of necrotic tissue (demolition), and the replacement of this tissue.

To understand healing from the **Buddhist perspective**, a useful starting point is to consider the Buddhist concept of mind. The mind is non-physical and it is formless, shapeless, colorless, and genderless and has the ability to cognize or knows. The basic nature of mind is pure, limitless and pervasive, like the sun shining unobstructed in a clear sky. In fact, **the mind is believed to be the creator of all of our problems**. That is, the cause of disease is internal, not external. Unlimited potential those are probably familiar with the concept of karma, which literally means action. Consideration of Healing involves maintaining one's balance: physically, mentally, emotionally, and spiritually. The principles of **safety, responsibility, respect and cooperation** are basic to healing.

1.3.1.1 Physical Healing

The goal of healing is the flourishing of body, mind and spirit at its highest potential!

....Brad Masters

That means the combination of physical and mental healing which restore the balance the life. Physical healing can occur through the use of food, vitamins, herbs or a contemporary physical treatment. Physical Therapy is the treatment of injury or disease by physical therapeutic means instead of by medical, surgical, or radiological measures. Physical therapy can include massage, patient education, exercise, stretching, and water therapy. It may also be called physiotherapy.

The channel is usually a person, whom we call a healer, and the healing energy is usually transferred to the patient through the healer's hands. And it can help with any problem, mental, physical or emotional. Healers are especially effective for musculo-skeletal

problems such as frozen shoulders, stiff necks and bad knees. There is improved healing and benefits to be obtained through cultivating your spiritual life.

Beyond the medical treatment, physical healing can generate through the space manipulation. It makes quality of space with change the quantitative parameters. Colours, textures, scale, proportion etc are the quantitative parameters to achieve the quality of healing.

1.3.1.2 Mental and Spiritual Healing

The psychological aspect of healing contributes through the Mental and Spiritual Healing. **"Mental healing"** emphasizes the interpenetration of what are usually called **"mind and body"** and makes use of the power of thought to affect the body. In the

worldview of mental healing, people's deeply-held

thoughts make them ill or at least create the preconditions for disease and psychological problems. Healers work to remove deeply held resentments, to release unexpressed emotions, to assuage buried fear in order to build self-confidence and to plant in people a positive and hopeful view of their path through life.

A simple level, a person whose self-image has led to a destructive diet that has caused medical problems may improve the problem and the diet_changing the self-image--which is a way of thinking, an intention, a mental act. The best method of mental healing is to do it own. Self-defeating self-talk ("I can't do anything right," "I always mess up in math")

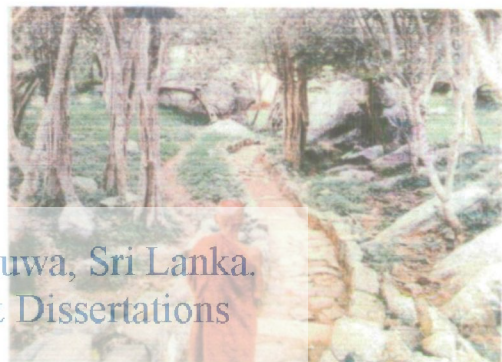


Fig 10: creation of physical object to archive psychologically comfortable



Fig 11: "spiritual" refers to the divine nature of the energy

The word **"spiritual"** refers to the divine nature of the energy, which healers agree comes from one external, invisible intelligent source and it is available to all. Spiritual healing is when energy is transmitted to the person who needs it. The treatment works on the body, mind and spirit, which are seen as one unit that must harmonize for good health. Spiritual awareness and growth can effect a transformation in our whole being. It may develop a basic trust and faith that is unshakable.

"Some healers attribute spiritual healing to God, Christ, other "higher powers," spirits, universal or cosmic forces or energies; biological healing energies or forces residing in the healer; psycho kineses (mind over matter); or self-healing powers or energies latent in the healee. Psychological interventions are inevitably part of healing, but spiritual healing adds many dimensions to interpersonal factors." -5

Dr. Burke has listed a number of benefits that are gained through spirituality in relationship with God. These are **Security and Safety, Peace of Mind, Self-Confidence, the Capacity to Give and Receive Unconditional Love, Guidance.** So the spiritual healing can help mental and emotional problems and physical conditions such as a frozen shoulder. Beyond that limits spiritual healing becomes a holistic one which addresses the whole person, including body, emotions, mind, relationships, and spirit. But it connects to the different orientation.

1.3.2 Correlation between healing and Architectural Expression.

Architecture as an art and science of creating build environment. Built environment can be defined as physical surrounding and condition affecting people physiologically & physically. Therefore architecture, not only shape stimulates the mind of people to create environment more comfort.

The combination of mind, body, senses and the soul being consists of Humans. Just as the physical body have certain characteristic functions, so do the immaterial soul and spirit bodies. Healing is not a need only for failing of body parts, but as **an unbalance between a person's inner and outer world.** This outer world or environment created by man, influence him in variety of ways; it may be influence him psychology & physically. This

man made environment want be consist with meaningful process of self-healing and spiritual growth.

Consider the **Healing Space** is created to inspire and guide individuals, couples and business organizations who are ready to experience extraordinary success, vitality, and full self-expression. Here, individuals and couples will find compassion, acceptance and healing as you gain crucial tools for living a more successful, heart-filled and passionate life.

Healing is not only emotional but also the **spatial quality** which creates a character to the space. Architecture is a comprehensive spatial organization consisting of a major space, many intermediate spaces and transitional spaces. Their arrangement forms a movement of spaces suggesting a path, a direction and an end. These spaces individually and

as a whole make expression of healing. As man experiences this spatial movement, he decides the expression of healing according to the total building.



Fig 12: Sense of Healing in Architectural space

The quality of Healing in Architectural space senses in degree of level. It can be regulate by the changing of parameters in quantitative elements such as colours, volume, texture, lighting etc.

In religious Architecture, certain kinds of ideologies are expressed by the relevant type of expressive qualities in the environment. The expressions in the temple directly relevant to the quality of healing that form emotions in the user through which the required behavior is facilitated. It may create by the elements, "weli maluwa", Bo-Tree, Traditional Buddhist buildings etc.



Fig 13: Expressive qualities in the religious environment

1.4 Creating Healing Environment in Architectural space

Healing is a process that can only take place within ourselves, but this process can be activated and supported by things and actions outside us.

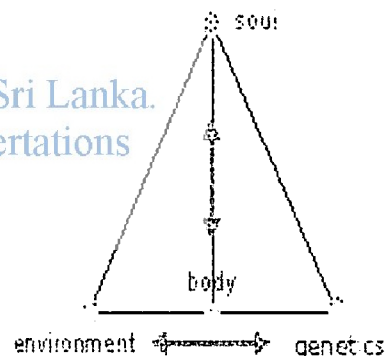
1.4.1 Definition of "Healing Environment"

People identify the environment through their five senses: sight, smell, touch, taste and hearing. The information they pick up from their senses is relayed to the brain which, in turn, will affect the physiological, emotional, psychological and, ultimately physical condition. These conditions support a greater skill and enable them to create truly responsive healing environments.

What is a healing environment? A healing environment is one in which People are encouraged to get better and bring themselves to a state of good health. According to Wikipedia, Healing environment, for healthcare describes a physical setting and organizational culture that supports patients and families through the stresses imposed by illness, hospitalization, medical visits, the process of healing and sometimes bereavement.

There are three forces that determine the pattern of every life - **environment, genetics and the soul (the life force).**

There has been much debate in scientific circles about the influences of environment and heredity, and the relationship between one and other. Good environments make us feel better, and feeling better is the key to getting better. Make a good environment when regulate the quantitative parameters (elements etc.) to capture the qualitative attributes.



Source: From Wikipedia, the free encyclopedia

1.4.2 Elements in Architecture to generate healing Environment

Spaces create by Architecture and it contains both qualitative and quantitative attributes. The real significance of quantitative aspects is that they are mere generators, or indicators of many qualitative aspects. They are the 3 – dimensional "physical" spaces within and among buildings. Their consistency and inter-relationships bear significances which are of

importance, as volumes created are not mere physical elements of spaces. They are rather, clear indicators of spatial expressions contained within.

1.4.2.1 Geometry

Design as Healing Environments provide tangible benefits for a stress free personal or business environment. Therefore the location fit according to bio geometry. Shapes matched to the frequencies of the land thereby allowing you to live and work in harmony with your surroundings, possibly with a lower mortgage.

Become more in tune with the environment around us by including natural shapes such as circles, hexagons, the most common, triangles, spirals, circles, crescents, domes and countless organic shapes of spaces. Radius corners and edges provide an ergonomic and organic environment that is more conducive to human interaction. Creative design ideas may incorporate principles from vastu, feng shui, native, sacred geometry, star alignments, crop circles and other fractals of natural law (universal design).

1.4.2.2 Scale and proportion

The scale refers to how we understood the size of the building elements or space reparative to other forms. Something is being compared with other elements of known size in their context. Architecture basically handles with 02 types of scales.

"Generic scale" – the size of the building element relative to other forms in its context.



Fig 14: organic form and shapes of spaces at Indial resort India

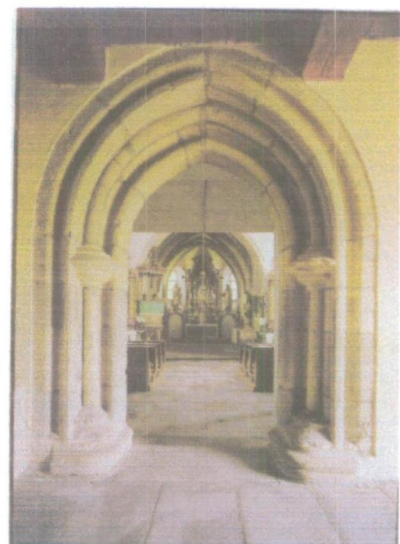


Fig 15: Scale, proportion enhance the qualities of space

“Human scale” – the size of the building element or space relative to the dimensions and proportions of the human body.

In other word Architectural scale refers to the relation of sizes of one another, and particularly to the relation between the size of architectural forms and spaces and that of the human figure. Scale of the space should be modulated to provide variety, to accent changes in function and ambience, and to help define the progression from one end to the other space.

Proportion is a qualitative attribute to change the quality of space. It may understood clearly the meeting of two spaces, create sudden changes in one mind particularly as required to adjust to a new place height, width and even depth of space could contribute in achieving the required transition for particular function, by change of one’s state of mind and allowing him to feel differently.

1.4.2.3 Sound

Sounds create sensations of pleasure affecting the limbic system. They improve the function of the autonomic nervous system and help release endorphins, the body’s natural opiates. Sounds such as rain, a breeze, the sea, moving water and songbirds can calm and create a sense of wellbeing. Biological sounds, such as a mother’s heartbeat, have been used to de-stress infants.

“Music structured through these controls (scales, rhythm and amplitude) can produce changes in emotion, mood, energy level and desire can evoke memories or stimulate fantasy.”

One of the most important aspects of a balanced and creative life is to nurture and maintain a healthy, happy and constructive emotional nature. Use of music creates healing environment pioneers in the healthcare facilities. Music can have an analgesic or painkilling effect, and can also reduce blood pressure, heart and respiration rates. Courtyards and landscaped gardens close to patient areas should include plants that encourage songbirds. Music therapy is used to treat depression, to reach autistic children and to calm and relax agitated psychiatric patients. New age, bio-music based on natural body rhythms can prove to be extremely relaxing.

1.4.2.4 Colours

"It is one of the oldest forms of communication known and we are attracted to it like magpies to a shiny object. Colors is simple and pure." -6

Herbert Ypma – "Pacific Island" – (p.99)

Colour is a one of the spatial tool of a place. Colour has great deal of difference between comfort & discomfort under a particular effect of lighting. Colors for instance have temperature (Cool & warm) and smell (Fresh or enervative), weight (heavy or light) and even related to sound (loud or soft). A Smoother Colour can relieve stress & make us feel calmer. But the warm Colour create on our nerves, making an uncomfortable so the Colour which change our condition of mind.

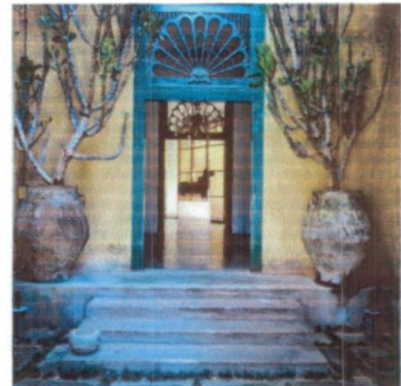


Fig 16: Cool & warm colours enhance the journey of healing

Colour consulting is a balancing process that reduces (removes) stress, creating a tranquil, energizing space that is soothing to the mind, body and soul. An optimum color combination stays fresh. The space will not become boring or tiring. In healing environment Harmonic colours use in multiple paint colour map. Can also use specify material / fabric colours. Colours can be selected by geographic location, intuitive selection or a combination of both Interior and exterior color maps.



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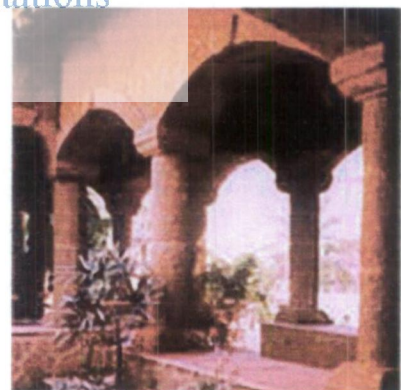


Fig 17: Colours contribute to energize the space

1.4.2.5 Lighting

The nature of natural & artificial lighting can accentuate individual space – defining elements and change their effect. The light is the key point of modulating a space. It enriches the quality of the space that is given by colors & textures. The



Fig 18: Lighting makes the difference to gain degree of healing

lighting level also changes the spatial quality of space. The quality, quantity and color of light effects the way we see our surrounding as such needs directions, controls and perhaps supplemental sources of light. A natural light in fully meet space is the best way for meditation in Healing environment. Lights can make space appear large or small, friendly or cold. Light affects the way we interpret texture when it high lights textural relief and light effects pattern by clarifying or by submerging details.

Balanced efficient full spectrum lighting with direct spots using non-glare lighting fixtures is essential in healing space. Also selection of windows with glass types, skylights, atriums, solariums and valence locations.

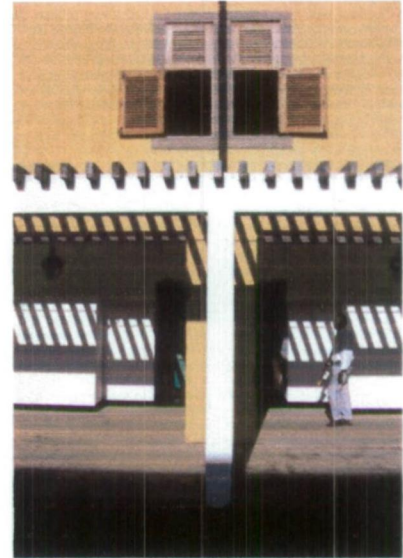


Fig 19: Object use to create spaces from lighting

1.4.2.6 Materials & Textures.

In the context of architectural work of art materials state are important as they effectively get together with visual quality, the structural stability and other aspect the cascade several parameters.

"Materials are the flesh, bones and skin of architecture. Their Proper use and selection has preoccupied architects through ages"

Ibdp (p.214)

In architectural performance materials denote the physical representation and their characteristic behavior in to the space it self. Colors, texture, sound, reflection and many qualities may result accordingly. Considering of Texture, it is the condition of surface that explain the roughness or the smoothness it can be affected to the darkness or to the lightness of the place too. Heavy textual surfaces may see dark than a smooth surface. Thus the textures of a vertical



Fig 20: Combination of materials & textures for ordered the space

space as well as horizontal space as floors affect the spatial quality.

Selection and sizing of building materials and finishes Stone, concrete, straw, wood, earth (adobe), metals, fabrics, recycled material options and found objects creating the healing Architectural space.

1.4.2.7 Views & Symbols

Views establish the visual relationship between interior and exterior, openings, windows; doorways provide the framed views and contribute to enrich the qualities of space. And also views may extend to semi-enclosed space for behind its actual boundaries even making space endless connecting it with the horizon.

Other than that fine embedded symbols or graphics in the form of logos, sacred geometry, I-Chine, Rune, crop circles and other esoteric symbols incorporated into floors, walls or ceilings to balance healing. In addition to their

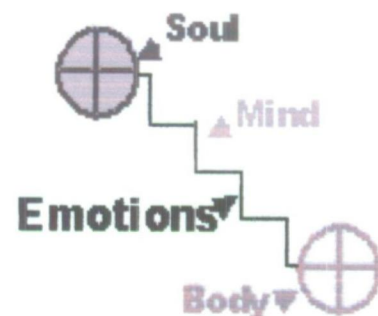
functional and aesthetic roles, buildings convey symbolic meaning by visual reference to icons. Since individuals need to concentrate their energies on healing, architects often design spaces to provide an atmosphere of security, cleanliness, and physical comfort.



Fig 21: Continuation of healing journey feels "towards something" and "termini"

1.5 Healing as a need for human life style

The fast-paced complex modern life has left many of us feeling tired, worried, overwhelmed, burned out, depressed, out of balance & disconnected from what most support us. Some peoples hearts pain, Souls is yearn, Spirits cry out. And also modern man is ever effecting from his socio economic, political & physical climate



Source: From Wikipedia, the free encyclopedia

environment. Therefore Body and mind are subjected to more stress. The most common manifestations of stress (other than spiritual causes) are **mental stress, Emotional stress and Physical stress.**

Best medicine for people in stress desire to live, to be with other people, to get back to life. Healing is a quality which had "**senses of care**", illness is not only occurred to physical body, it's common psychology too. It hasn't feeling of fear, Helpless; in security and dependence on others. Can Architecture do this? Man lives the physical environment made by him. To achieve this, physical environment want to consist with uniqueness & with legibility to feel mood of support, and rhythm, polarity within unique whole. All these are achieved healing through sense of stability, mood of support & atmosphere of ease. Then The Architecture is the best way to reduce stress & create encouragement, alive & healing environment.

Then how can architecture be an integral part of the healing processes be? "Creating a sense of care" in here man wants to feel their outer environment is welcoming him or her, as a part of his outer environment care is in the feeling of belongingness or the feeling of "Home". It has physical environment is consists without feeling of fear, helplessness insecurity & dependence on others.

1.6 Ayurveda - an ancient healing tradition

Ayurveda, as the world's oldest known health-care system, is the "**granddaddy**" of **healing traditions**. Developed over century's use of, it is not simply involved with treatment of disease or imbalance. Much of Ayurveda has been developed to create appropriate ways of living the life to stay in balance and keep the body, mind and spirit harmonized.

Nidane Madhava Shreshthah, Sutra Sthane Tu Vagbhatah;

Sharire Sushrutah Proktah, Charakastu Chikitsake.

It means the traditions in Ayurveda. There are Three traditions of Ayurveda exist today, two of them based on the compendia of Charka and Sushruta Samhitās, and a third tradition known as Kāshyapas. However, Ayurvedic remedies prior to these traditions also exist. Both the Sushruta and the Charaka Samhitās is the product of several scholars, having been

revised and supplemented over a period of several hundred years. The scholar Vāgbhata, (7th century AD) wrote a synthesis of earlier Ayurvedic materials in a collection of verses called the Ashtānga Hridayam. Another work associated with the same author, the Ashtānga Samgraha, contains much of the same material in a more diffuse form, written in a mixture of prose and verse. The works of **Charaka**, **Sushruta**, and **Vāgbhata** are considered canonical and reverentially called the Vriddha Trayi, "The Triad of Ancients"; or *Brhat Trayi*, "The Greater Triad." In the early 8th century, **Mādhav** wrote his **Nidāna**, a work on etiology, which soon assumed a position of authority.

The tradition of Ayurveda's goal is to achieve health by working toward balance and harmony, not by fighting disease. Prevention is emphasized over cure. Ayurveda recognizes the importance of physical balance, emotional release, mental health, environmental mindfulness and spiritual progression in the total health picture.

According to legend Buddha, the physician called **Jivaka** is said to have practiced cranial surgery, with success; a great admirer of Ayurveda, sent teachers to different countries to integrate Ayurvedic perspectives into local healing traditions. These traditions, in turn, became the foundation for many of today's approaches to medicine in **Sri Lanka also**.



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CHAPTER TWO :
ROLE OF AYURVEDA IN "HEALING ENVIRONMENT"

2.1 Ayurveda - The Science of Life

The Sanskrit term "Ayurveda" is a holistic healing science which comprises of two words, **Ayu** and **Veda**. Ayu means "life" and Veda means "knowledge or science". So the literal meaning of the word Ayurveda is the "**science of life**". Ayurveda is a science dealing not only with treatments of some diseases but is a complete way of life. As mentioned above Ayurveda is a science of life so to know more about what is life? Life according to Ayurveda is a combination of senses, **mind, body and soul**. So it is clear from this definition of life that Ayurveda is not only limited to body or physical symptoms but also gives a comprehensive knowledge about spiritual, mental and social health.

"To make people aware about their life -style, diet, exercise

 and
mental activities to achieve perfect balance in mind, body & soul"
Ayu (life) is a combination of
mind + body + senses + soul

(Maharishi Charak- The Great Ayurvedic Scholar)

The origin of Ayurveda are 'Vedas' which are the oldest available classics of the world contain practical and the scientific information on various subjects beneficial to humanity such as health, philosophy, engineering, astrology etc. The modern people are unrest, anxiety, mental tension, fighting and terror everywhere despite best efforts being made to stop it. That is because some part of our body is not being support properly. And that is our inner self or the soul. Ayurveda practices the theory of balance. The multi-faced application of Ayurveda becomes more confirmed when go more deep into it.

2.1.1 Principles of Ayurveda

Ayurveda believes that health results from harmony within one's self. To be healthy, harmony must exist between own purpose for being, thoughts, feelings, and physical actions. Ayurvedic philosophy believes that only a person with a strong immune system can be healthy. The practitioners identify the immune system as a fragment of nature (the Divine Mother). This gift from her creates us, sustains us, nourishes us, and protects us from outside invasion. As long as our immune system is strong, we suffer no disease. The ancient Vedic word for immunity means "**forgiveness of disease**" from the concept that negative thoughts and lifestyles cause disease. Disease, therefore, is a message about a need for change . . . if only we can understand this.

In this sense, strength comes from transforming our projections about our symptoms. Healing comes from seeing adversity as a challenge, by taking back our negative thoughts about people and events the transform disease into a "perfect opportunity." **Spiritual health**, then, is a dynamic balance between a strongly integrated individual personality and nature. This is only possible when people remember their debt to nature.

"Dosha Dhatu Mala Moolam hi Sareeram" The essential component of the human body consists of Doshas, Dhatus and Malas. Deha Dhatus mean the supporters of the human body. The **three Doshas, the seven Dhatus, the three Malas**—these thirteen constitute the human body in balance condition according to Ayurveda.

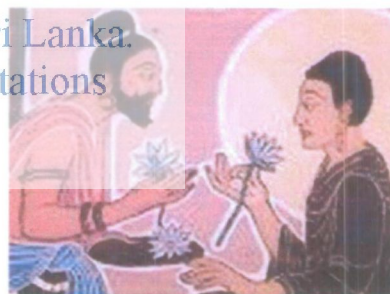


Fig 22: Approach of healing from Buddhist philosophy and Ayurveda tradition

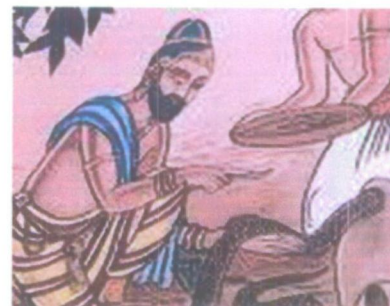


Fig 23: King Buddhadasa (398 AD), the most influential of these physicians, wrote the "Sarartha Sangrahaya"

2.1.1.1 Five Great elements in Ayurveda (Prithvi, Apa, Tejas, Vayu, Akash)

Everything in this universe is composed of five elements. The human body is also made up of the five elements and the soul that are known as, "**Panchamaha Bootha**". These five

- elements are:
1. **Prithvi** or earth
 2. **Apa** or water
 3. **Tejas** or fire
 4. **Vayu** or air
 5. **Akash** or space / Ether

The five elements are the basic constituents and everything can be explained in terms of these elements. For example, the bulky and solid part is earth, the digestive enzymes which are responsible for digesting is fire, the hollow, empty parts and big beer belly is space.

Earth (Prithvi)

Represents the solid state of matter. It manifests stability, permanence, and rigidity. In our body, the parts such as bones, teeth, cells, and tissues are manifestations of the earth. *Earth is considered a stable substance.*

Water (Apa / Jala)

Characterizes change and represents the liquid state. Water is necessary for the survival of all living things. A large part of the body is made up of water. Our blood, lymph, and other fluids move between our cells and through our vessels, bringing energy, carrying away wastes, regulating temperature, and carrying hormonal information from one area to another. *Water is a substance without stability.*

Fire (Tejas)

This is the power to transform solids into liquids, to gas, and back again. In other words, it possesses power to transform the state of any substance. Within our bodies, the fire or energy binds the atoms together. It also converts food to fat (stored energy) and muscle. Fire transforms food into energy. *Fire is considered a form without substance*

Air (Vayu)

This is the gaseous form of matter which is mobile and dynamic. In our body, air (oxygen) is the basis for all energy transfer reactions. It is a key element required for fire to burn. *Air is existence without form.*

Ether or Space (Akash)

This is the space in which everything happens. It is the field that is simultaneously the source of all matter and the space in which it exists. The chief characteristic of ether is sound. *Here sound represents the entire spectrum of vibration.*

These five elements in their biological form in the living body are of three different kinds. The Ayurvedic term for three primary life forces called as **Tridosha** (Tri means Three).

2.1.1.2 The Three Doshas (forces / Humours)

The most fundamental and characteristic principle of Ayurvedic healing is called "**Tridosha**" or the Three Humours. The nearest translation, meaning or comparative of these terms depending upon their qualities, actions and behavior are Vata is compared to air and Ether, **Pitta** is compared to fire and water, **Kapha** is compared to Earth and water.

The vata, pitta, and kapha doshas are associated with different individual characteristics:

Vata is the pranic life-force energy associated with physical and psychological movement, circulation and the nervous system. People predominately influenced by the vata dosha tend to have thin, light, flexible bodies and are characteristically quick, changeable, unpredictable, enthusiastic, and talkative. They often possess quick minds and are creative. The vata dosha is balanced by regular habits, quiet, attention to fluids, decreased sensitivity to stress, sufficient rest, warmth, steady diet, and oil massage.

Pitta is a energy governs metabolism. Pitta individuals are often of medium height and build; and tend to be fiery, intense, possess a sharp and creative mind, a penetrating look in their eyes, a ruddy complexion, a competitive streak, and a hot temper. Moderation, coolness, leisure, exposure to natural beauty, and decreased stimulants balance the pitta dosha.

Kapha is energy governs the body's structure and provides strength, vigor and stability. Kapha individuals usually have a strong, large, healthy, well-developed bodies that tend to gain weight. They are even-tempered and calm, and have impressive endurance. The kapha dosha is balanced by regular exercise weight control, variety of experiences, warmth, dryness, and reduced sweetness.

All these factors need to function in a proper balance for good health. They are inter-related and are directly or indirectly responsible for maintaining equilibrium of the **Tridosha**. Other important basic principles of Ayurveda which are briefly mentioned here are:

Dhatus – These are the basic tissues which maintain and nourish the body. They are seven in number, namely – chyle, blood, muscles, fatty tissues, bone, marrow and semen.

Mala – These are the waste materials produced as a result of various metabolic activities in the body. They are mainly urine, feces, sweat, etc.

The five Elements, the three humours serve both as a general description of all physical manifestation but more specifically relate to the physical body. Health is described as a balance of all three bodily Humours. The most significant in Ayurveda offers a constitutional approach that is based on each individual's humeral predisposition.

2.1.2 Ayurvedic body type for all individuals

The difference in proportion of three doshas brings us different personality in Human body. If any of these doshas accumulate the human body, it results in health problems. So Ayurveda recommends to follow specific diets to **maintain equilibrium** of these doshas. The Ayurveda text, Charaka, says,

"Man is the essence of the universe (macrocosm). Within man, there is as much diversity as in the world outside. Similarly, the outside world is as diverse as human beings themselves."

In other words, all human beings are a living microcosm (human body) of the universe and the universe is a living macrocosm of the human beings. Ayurveda views each and every person as unique, with a unique mind-body constitution and a unique set of life

circumstances this view is in alignment with the modern science which views individuals as unique in the universe with a unique DNA. According to Ayurveda, because we each have a unique constitution, our health prescription must be unique to us. This means that in order to be healthy, need to eat certain foods that are beneficial for body type and stay away from others. The exercise program must be also personally suitable as well. Ayurveda is not merely a healing system of diseases, but knowledge how to lead one's life in tune with nature and to achieve the higher realms of happiness. Ayurveda is a complete system of healing in itself.



Fig 24: a unique mind-body constitution and a unique set of life

2.2 Ayurveda in Sri Lanka

Sri Lanka, with its archaeological history dating back to at least 30,000 B.C., has its own indigenous scheme of medicine. This system has been practiced for many centuries in the island nation and it had a profound effect on the medicine of Tibet, China, Persia, Egypt, Greece, Rome and Indonesia. The Sri Lankan Ayurvedic tradition is a mixture of the Ayurveda systems of North India, the **Siddha** system of South India, **Unani** medicine from the Arabs, and most importantly, the "**Desheeya Chikitsa**" (Traditional Medicine) which is the indigenous medicine of Sri Lanka.

In history Sri Lanka developed its own Ayurvedic system based on a series of prescriptions handed down from over a period of 3,000 years. The ancient kings, who were also prominent physicians, sustained its survival and longevity. **King Buddhadasa (398 AD)**, the most influential of these physicians, wrote the "**Sarartha Sangrahaya**", a

Identified Hospital complex in Inner City

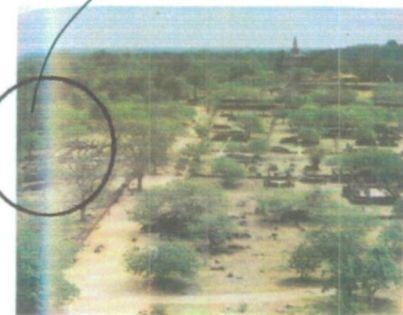


Fig 25: Ruins of ancient hospital complex for monks at Alahana pirivena in Pollonnaruwa

comprehensive manuscript which Sri Lankan physicians still use today for reference.

Ancient inscriptions on rock surfaces reveal that organized medical services have existed within the country for centuries. In fact, Sri Lanka claims to be the first country in the world to have established dedicated hospitals. The Sri Lankan mountain **Mihintale** still has the ruins of what many believe to be the first hospital in the world. Other than that **Alahana Piriwena** hospital & **Madirigiriya** hospital established in Polonnarowa period, **Ritigala** etc. These places have come to symbolize a traditional sense of healing and care, which was so prevalent at that time. Along with Buddhism, the interrelationship between Ayurveda and royalty continues to influence politics in Sri Lanka.

2.2.1 Tradition of Ayurveda in ancient society

Consider the ancient society people were interrelationship, interdependent, respectful of each other etc. The society shaped by the village, Temple, Water Tank, Dagaba. So their lifestyle was very simple special from the religious background. "Ayurveda" contribute an important role in their society and who called "**Weda Mahattaya (physician)**" conduct a major character of society. Historically the Ayurvedic physicians enjoyed a noble position in the country's social hierarchy due to their royal patronage. From this legacy stems a well-known Sri Lankan saying: **"If you can not be a king, becomes a healer"**. The Ayurvedic physicians continue their ancient knowledge by generation to generation as a social service. He also specialized as a consultant surgeon.

A place called "**Weda Gedara**" had inviting quality for villagers & outsiders. It had a large open space in front of the house with wide step up verandah which placed simple chairs. In one side of house, there was a simple timber structure for prepare medicine and also serious treatments. Very soothing environment with fresh smell of medicine spread around the house which makes natural healing.

Every patient gave some sati factionary to The Ayurvedic physicians after he salvaged from illness. It may be a daily need, free of charge paddy cultivation, various furniture, collection of raw materials for medicine etc. The basis from Buddhism makes society very simple. And they took fresh food with full of nutritious, Hard working and very pleasure mind and

body help to their people more healthy. So The Ayurvedic physicians always ready to limited remedies. In case of Changing the society most of were adapted to the western medicine, through the place called "Dispensary" and identified a person named "Doctor". But the tradition of Ayurveda remains their essence with the changing of society.

2.2.2 Changing attitude of Ayurveda in modern context

Ayurvedic medicine practice over almost 100 years, Ayurveda was known as "**the poor man's medicine**," adopt only in rural areas where Western medicine was too expensive or unavailable. In 1978, at a conference on Third World Medicine sponsored by the World Health Organization (WHO) of the United Nations, it was concluded that Ayurveda would be the best system of medicine for undeveloped countries. There is hope that a global medicine will be created with Ayurveda as its base; it's low cost, use of local herbs and remedies, adaptability to any climate, and reduced dependence on pharmaceutical products, are all favorable aspects for the world's population. Western, Chinese and traditional native medicines may be appropriately blended in each locale.

In contemporary situation Ayurveda promotes research and practices level. This has been attributed to its well established Ayurveda centers and Ayurveda pharmaceutical companies. So there are many Ayurvedic centers Begin all over in the world. As a result of strong regulations in medical practice in Europe and America, the most commonly practiced Ayurvedic treatments in the west are massage, and dietary and herbal advice. Ayurveda is also being increasingly used in modern day formats in personal care.

2.3 significance of Ayurveda for creating the Healing Environment in hotels

In the renaissance of the Traditional Ayurveda system, it adapted to the hotel environment with related to Tourism. Tourists come to Sri Lanka with a view to partake in leisure activities, enjoy physical environment and experience our culture through the **eco-tourism and cultural tourism**. In Ayurvedic system identified as a combination of **nature & culture** which bound to the tourism that create the healing environment in hotel background.



The Ayurvedic remedies act on the total body, strengthen the power of resistance and promote healing. Ayurveda is conducive to your health, provides you with new vital energy prevents and corrects the ageing process. And the changing attitude of Ayurveda, in hotel environment, the treatment and context had been changed. The hotel's menu of massages, body works, facials and salon treatments features rejuvenation therapies, Oriental traditions and modern European techniques. Allow your senses to be lulled into a peaceful state by the welcoming smiles, soothing music, skilled hands and traditional restoratives such as herbs, oils, spices and flowers. One of the spa's many signature treatments is The Marma Body, Mind and Spirit Massage that promises to stimulate the body's vital pressure points. The space Create beyond healing from the Ayurveda treatment to user in better setting for relaxation & improve their physical & psychological capacity where escape from complex urban living style.



Fig 26: Ayurvedic tradition to hotel environment in Light house hotel

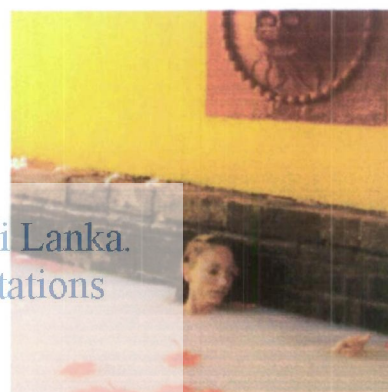


Fig 27: Healing space – stress release by the space very specific

While some hotels have a high level of design and drama which may be aesthetically appealing, they generally lack those qualities that one would consider to be restorative or conducive to physical, emotional, and spiritual healing.

2.3.1 Definition of Hotel and relevance to the study

Building that provides lodging, meals, and other services to the traveling public on a commercial basis. Inns have existed since ancient times to serve merchants and other travelers. The spread of travel by stagecoach in the 18th century stimulated the development of inns, as did the Industrial Revolution. The modern hotel was largely the

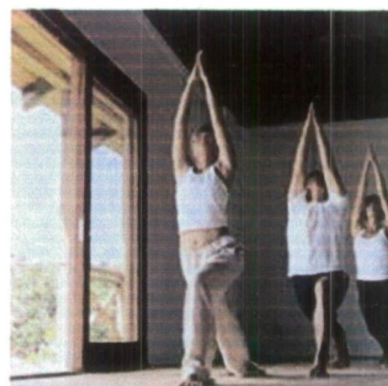



Fig 28: Yogo - a process for self healing enhance by the space

result of the railroads; when traveling for pleasure became widely popular, large hotels were often built near railroad stations. After World War II, new hotels tended to be larger and were often built near airports. Hotel chains became common, making purchasing, sales, and reservations more efficient. Hotels fall into three categories: **transient hotels**; **resort hotels**, intended primarily for vacationers; and **residential hotels**, essentially apartment buildings offering room and meal service.

According to Wikipedia, A hotel is an establishment that provides paid lodging, usually on a short-term basis. Hotels often provide a number of additional guest services such as a restaurant, a swimming pool or childcare. Some hotels have conference services and meeting rooms and encourage groups to hold conventions and meetings at their location. Hotels differ from motels in that most motels have drive-up, exterior entrances to the rooms, while hotels tend to have interior entrances to the rooms, which may increase guests' safety and present a more up market image.

2.3.2 Expression of healing as a need of hotel spaces

 The hotel buildings have expressions which are qualities inherent in the perceptual appearance of the Form and Space. These spatial qualities are felt by people who arrive at the place or use it. Through these feelings they impart certain meaning or character to the building.” Healing “a spatial quality as a need in hotel environment that directly connect to the relaxation.

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The movement of hotel spaces that induces healing, suggests a direction, a path, an inclination to move along, many upheavals that makes the experiencer pause, turn, rest, at will, change his pace etc., before reaching the destination. This journey thus forms a number of steps which may, at the same time, have slight differences too, and the vigour of its own, depending on the situation. One can benefit from the healing properties just by swimming or by leisurely immersing oneself in the swimming pools with heated sea water or the swimming pools with thermomineral water as the ultimate goal has been achieved.

2.4 The approach of Healing Environment in "spa"

Architect Robert Henry believes that resort and club spa designs should incorporate the vernacular of the property where they are located and should be a critical part of the total guest experience. "From traditional massage and yoga to liquid balancing, a spa visit can purify, revitalize and **balance our body, mind, and soul**," Henry stated. "The whole idea of the spa experience is to transport a visitor to a place, either metaphysical or real."

Earlier projects designed by Henry, who heads the New York-based firm Robert D. Henry Architects, included New York City's Ajune and Palm Beach's Trump Mar-a-Lago. Two more recent projects "the completed spa at Amelia Island Plantation in Florida and the preliminary designs for Sanjevani Healing Village Spa in New Mexico--have allowed Henry to take his philosophies of spa as unique place and spa as a transforming experience and combine them into unique places of healing and comfort.

2.4.1 Origin of spa and its relevance to the hotel

The term is derived from the name of the town of Spa, **Belgium**, where since medieval times illnesses caused by iron deficiency were treated by drinking chalybeate (iron bearing) spring water. In 16th century England the old Roman ideas of medicinal bathing were revived at towns like **Bath**, and in 1571 William Slingsby who had been to the Belgian town (which he called **Spaw**) discovered a chalybeate spring in Yorkshire. He built an enclosed well at what became known as **Harrogate**, the first resort in England for drinking medicinal waters, then in 1596 Dr Timothy Bright called the resort **The English Spaw**, beginning the use of the word **Spa** as a generic description rather than as the place name of the Belgian town. At first this term referred specifically to resorts for water drinking rather than bathing, but this distinction was gradually lost and many spas offer external remedies.

There are various stories about the origin of the name. A Belgian spring of iron bearing water was called **Espa** from the Walloon language term for "**fountain**", and was used in 1326 as a cure by an iron master with such success that he founded a health resort which developed into the town. It is also suggested that the term **Espa** may be derived from the

name of the resort, and that its source could be the Latin word "**spagere**" meaning to scatter, sprinkle or moisten.

Spa is associated with water treatment which is also known as balneotherapy, spa towns or resorts offering such treatment, or the medication or equipment for such treatment. The term thus has various related meanings. Following Eastern philosophy brought to the masses by Buddhism and Confucianism, Asian spa treatments often combine both mental and physical rejuvenation. By treating the body, mind, and spirit as one, Asian spa techniques attempt to look at the whole person. This approach to wellness can be found not only throughout Asia, but it has also influenced spas around the world.

If traditional spa cuisine is what you are looking for, the Asian dietary routines are quite common in spa cuisine. The vitamins, minerals, fibers, and antioxidants found in edamame, green tea, rice and buckwheat noodles, and tofu go perfectly with the spa setting. The massive continent of Asia is home to nearly two-thirds of the world's population, and it's impossible to cover all of the spas in Asia. A few number of spas in Singapore, Thailand, Sri Lanka, Vietnam and the Maldives highlight Asian spas.



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2.4.2 Types of spa

Spa, an entity devoted to enhancing overall well-being through a variety of professional services that encourage the renewal of mind, body and spirit. But it differs from place to place with their function, environment, culture, tradition etc. The spas are categories as follows.

Resort & Hotel Spas

Resort and hotel spa properties offer a wide variety of recreational facilities, including a full-service spa. Spa treatments and services generally complement a hotel stay or vacation activities at a resort.



Destination Spas

Destination spas offer a full-immersion spa experience in which all guests participate. All-inclusive programs provide fitness activities, nutritious spa cuisine, various therapeutic spa and body treatments, educational classes,



and often mind/body/spirit offerings to help you jump-start a new, more healthful lifestyle.

Connoisseur Spas

The world's crème de la crème of spas. Connoisseur Spas had their extraordinary ambience, luxurious accommodations, high staff-to-guest ratio, exceptional spa services, outstanding cuisine, and awards for excellence.



Casino Spas

Casino Spas offer vacationers a chance to try their hand at any number of exciting games of chance without leaving the premises. These high-end properties tend to attract fun-seeking travelers who like both their excitement and their spa luxury in large doses.



Day Spas

Day Spa visits offer a simple, flexible way to incorporate spa into your everyday life. Soothing massages, beautifying facials, and rejuvenating body wraps are just a few of the heavenly spa treatments that provide a healing break from your everyday routine.



Med Spas: Costly

These spas operate under the full-time supervision of a licensed healthcare professional. Medical personnel work alongside spa therapists in an atmosphere that integrates clinical-grade aesthetic enhancement and spa treatments/concepts. Med spas may or may not have overnight accommodations.



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Medical Spas: Wellness

These spas provide comprehensive wellness and preventive care that may adhere to traditional Western medical concepts, complementary/alternative philosophies, or a combination of the two (known as integrative medicine). Spa treatments are incorporated into wellness programs as an effective way to rejuvenate and reduce stress.



Dental Spas

Conventional wisdom has it that no one relishes a trip to the dentist, but by incorporating spa elements into their Dental Spa practices, today's enterprising dentists aim to make your twice-yearly checkup a spa-like luxury.



Mobile Spas

Mobile spas bring professional practitioners to your home or office, making it simple for you to enjoy pampering spa services such as facials, massages, manicures, and pedicures anywhere at any time. Plan a unique birthday party, bridal shower, or office party.



2.5 Ayurvedic approach in spa to composes the Healing environment

The traditions of wellness and good life are conceived and revived when approach Ayurveda to spa. This Ayurvedic spa is run by a team of professionals who are available at any time to provide personalized service and consultation while ensuring visitors' comfort with concern about to feel the sense of healing.

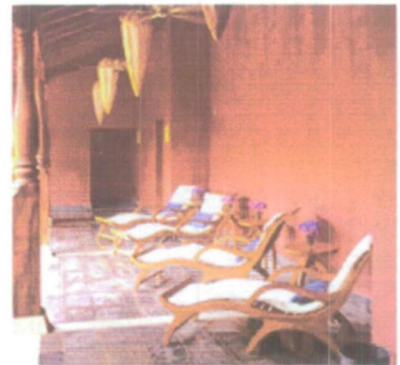


Fig 29: Healing through sense of stability, moods of support

Ayurvedic treatment done under the consultant physician with according to the Churaka Samhitha and Susrutha Samhitha & it is classified in two stages. There are



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Poorvakarma and **Panchakarma**. According to the Poorvakarma, Ayurveda offers a procedure of external therapies including face and body steam, body wraps, body and facial clays, and baths using water, milk, mud, floral waters or herbs. Consider the "massage" and "Shirodhara" treatment, it done a major role in Ayurvedic treatment. Good communication is essential to effective massage. The client and therapist should discuss the type of treatment expected: intention of the massage, areas to be massaged and to be avoided in full body massage.



Fig 30: "shirodhara" treatment

Various styles of massage have developed from a number of sources. Barefoot Deep Tissue, Bowen therapy, Breema, Chair massage, Chinese Zhi Ya massage, Deep muscle therapy, Deep tissue massage, Effleurage, Erotic massage, Esalen Massage, Foot or sole massage, Muscle Energy



Fig 31: relaxation in the space create by healing physical surrounding

Technique (MET), Shantala massage, Soft Tissue Therapy, Stone massage, Structural muscular balancing, Tantra massage, Thai massage, Trigger point therapy .

Panchakarma (the five specialized elimination therapies) is for the person that wants to detoxify the body and strengthen the immune system. There are **emesis (vomiting), purgation, inhalation, enemas and blood-letting**. It is recommended for the individual that is out of balance or is experiencing a particular illness or excessive toxins in the system. This treatment includes a medical evaluation with one of our physicians, who will recommend an individualized course of action based on your dosha and lifestyle.

Healing is a quality which need to heal the patient not only treatment, orchestration of spaces and changing elements of space. Can Architecture do this? Man within the physical environment made by him. To achieve this, physical environment want to consist with uniqueness & with legibility to feel mood of support, and rhythm, polarity within unique whole & respond to the Ayurvedic elements which related to thridosha.

|  <p>Vata</p> <p>Enthusiasm, Movements of various elements in the body, Regularity, Proper removal of Wastes, Proper Transformation, Efficiency of Organ</p> | <p>Pita</p> <p>Proper Digestion, Proper Metabolism, Body Temperature, Vision, Perception, Lustre, Intelligence, Courage, Suppleness, Thirst, Hunger,</p> | <p>Kapha</p> <p>Stability, Unctuousness, Lubrication, Intactness of Joints, Compactness, Forbearance, Tolerance,</p> |
|---|---|---|
|---|---|---|

2.5.1 Way of arrangement in Architectural elements - parallel to Vayu, Akash (Air, Space) elements related in Vata dosha

Air and Space combine to form the dosha **Vata**. Similar to its elements, Vata is involved in the *dynamic* bodily functions such as transmission of impulses and food.

The element **air** provides definite motion to the body. This element sets the universe in motion. It is a transparent and kinetic force that moves the blood through vessels, wastes from the body and thoughts through the mind. The element **space** contains several structures. It occupied by the cell denotes the last of the elements. It is everywhere and generally touches everything. It corresponds to spaces within the body like mouth, nostrils and abdomen.

The arrangement of Architectural elements according to Vayu, Akash (Air, Space) is significance in Vata Dosha. Consider the healing environment in Architectural space; it can be creating by the parameters in Architectural space.

According to Vayu, Akash elements, the space identified trough its expressive qualities such as **transparent quality** and "**sound**" in the space. And also elements of Air express the **Dry and Cold quality** and element of Space express the **boundless and lightness quality** more essential. To achieve above qualities modify the Architectural elements. Consider the quality of transparent achieve by the geometry, lighting, Material & Texture, Colours, & symbols, balance, sound etc.



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Form of the space considered as the three dimensional sense and realize the transparent quality by mainly organizes by geometry. Most of the healing spaces open either side as a need to blend with nature. It can be clearly identified in ancient Sri Lankan buildings that maintain axis.

John Koch identified the basic theory behind the influence that numbers have on our state of be-ing related to geometry. He was particularly interested in the numbers 1 through to 6 because they were the numbers that were manifesting in the geometry of his designs. The power in these numbers appeared to me to be related to the six cycles of creation.

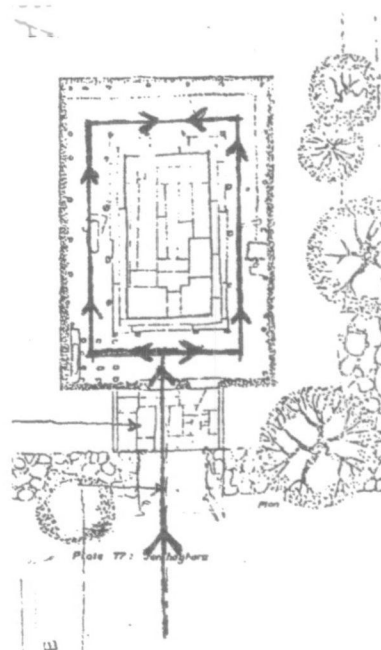
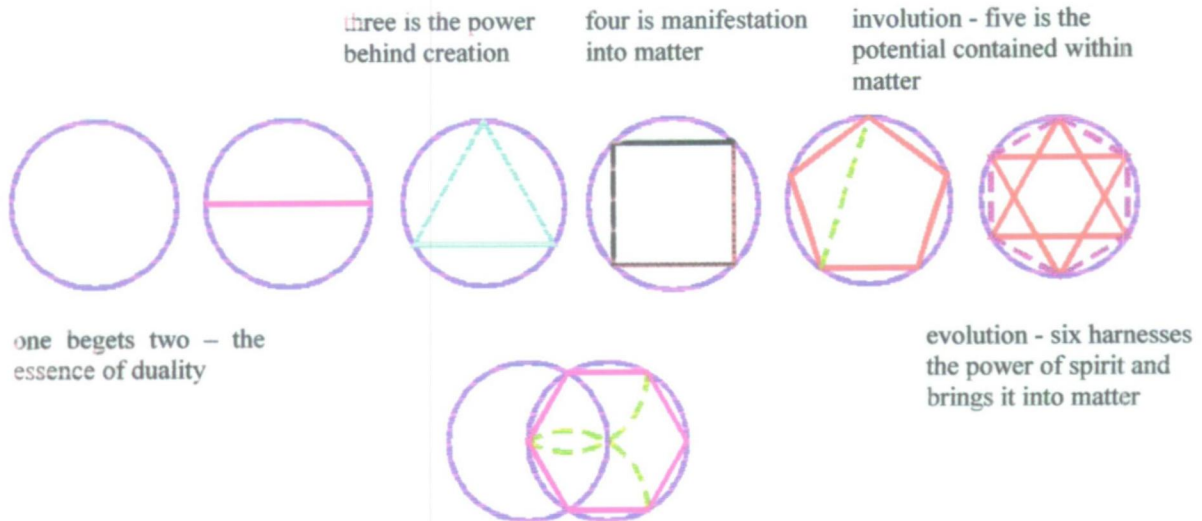


Fig 32: "Janthaghara"-open individual building in Arankele



When architecture incorporates these symbols, they need only be implicit as a theme out of which the design evolves. The power within the symbols is vibrational, and the way they are used should optimally be compatible with the inhabitants.

Beyond the above theory most of the Sri Lankan building geometry originates in square or rectangular shape. The square defines the four directions of north, south, east and west, and in its 3-dimensional form, the cube (contained within a sphere) defines the 3 directions of 3-dimensional reality and also influence the Buddhist philosophy.

Make the space transparent lighting done a major role. The luminance level had to balance by the sides of natural and artificial environment. Also express the user comfort and feel the space bigger or smaller when regulate the lighting colours.

Materials such as clear glass, grill door windows eliminate the connection of inner and outer space. Timber use to make the space light weight and more transparent. Repeat the texture in one space to another that the expression of transparent. It should be with colour, size and shape, rhythm to have a more qualitative space.

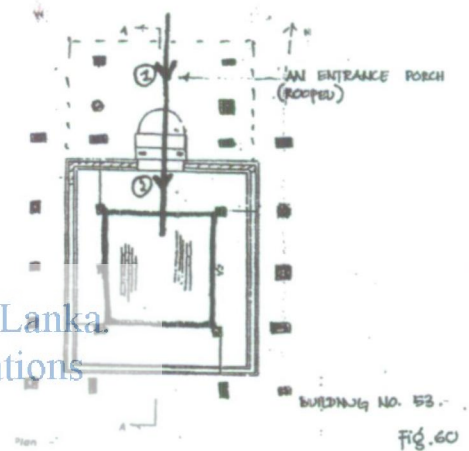


Fig 33: Building no: 53 square form individual building in Arankele



Fig 34: To balance inner and outer spaces use transparent material

Colour use in healing environment according to Vayu, Akash, the element Vayu more orient to warm colours and element of Akash orient to cool colours. But the entire space creates in higher degree of warm.

Warm Colour: perception of time – Time is over-estimated; use warm colours for areas where time is apparent' slow motion might be more pleasurable. (eating, recreation) Noise induces a hazier perception of warm colours. Brightness, Loudness, stimulation of senses in general is associated with the most active effect of warm colours.

Cool colour: Time is under- estimated; use cool colours for areas where routine or monotonous tasks are performed. Noise increase sensitivity for cool colours, Dimness, quietness and sedation of the senses general are associated with the most active effect of cool colours.



Fig 35: The warm colours create stable, alive in the healing environment

Consider the views & symbols in healing environment make different meanings and expressions. The concept of "Borrowed view" use to create space more transparent and sound. Also placement of doorways in axis and proportionate windows, semi-enclosed space as a positive reaction when achieve the transparent. using the symbols as an icon gives the meaning to the space it act as a connecting element of different spaces.

The quality of sound expresses the spatial quality. Especially in ancient monastries organize with natural elements such as rocks, trees, pathways, etc. for the purpose of meditation. The sound of meditation space (under the rock) generates feeling with blend of nature.

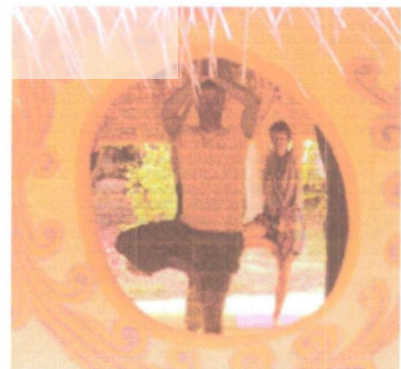


Fig 36: circle shape opening consists for concentration with symbolical meaning



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2.5.2 Way of arrangement in Architectural elements - parallel to Apa, Tejas (water, Fire) elements related in Pitta dosha

Fire and Water combine to form the dosha **Pitta**. Similar to its elements, Pitta is involved in *metabolism* such as digestion of food.

The **fire** element is the universal force in nature that produces heat and radiates light and definite colour, brightness. Fire is believed to burn or destroy the ignorance and makes the truth shine. It regulates the metabolic processes regulating the cell by controlling the functioning of various enzymes. The element **water** is present in the liquid within the cell membrane. Water is present in all body fluids such as plasma, saliva, digestive juices and enzymes. Water has the property of flowing and holding the things together.

The relationship of water and fire is vital. Not enough water in the pot will cause it to burn over the fire. However, too much water in the pot will cause it to overflow and drown the fire.



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Consider the combination of Architectural elements to Ayurveda with the basis of pitta dosha. Relationship of Apa, Tejas (Water, Fire) to generate the quality in healing environment. The concept regards water & fire elements make the **Active, energetic quality** and sense the space has a quality of "**power**". It may be a spiritual power of healing. Quantitative elements such as **scale and proportion, lighting, form & shape, texture and colours** etc. use to create the above quality with well organized.

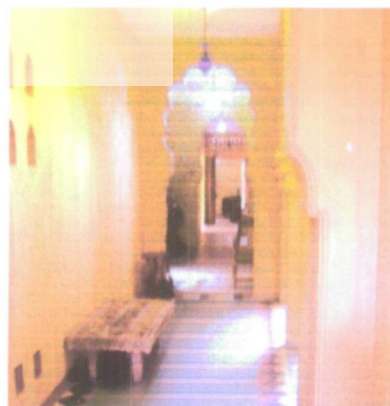


Fig 37: Characteristic of space create power of healing

Very large scale volume plays a sense of "power" in relation to proportion of the space. Larger depth of walls, bigger mullions of door & windows, well detailed space enhance the sense of power that expression comes better when combination of architectural elements such as form & shape, lighting, texture etc.

Colour combination gives different meaning to the space. According to Ayurveda principle Apa and Tejas generate warm cold, soft qualities.

Colour for instance proved to have weight;... Heavy/Light, smell;.... Fresh /enervate, sound;.... Loud/Soft, and temperature.... Warm/Cool

(The psychology of colour any design by Deb orah p 48)

To achieve healing quality mainly uses the harmonic colours. It can be select by the geographic location, intuitive selection or a combination of both. In Ayurveda identified as using warm colours which help to the patient cure. Considered worm colours, red- violet, red, red-orange, orange, yellow-orange, yellow, yellow-green. The other colours are considered cool colors .green, blue-green, blue, blue-violet, violet. The warmth or coolness of a color is also relative to the amount of white or black added.

Tejas element related to the warm colours and Apa element relate to the Cool colours. Combinations of these two are seen in most of the Ayurvedic centers. The space calmed that colour red in use may induce the occupants to feel warmer, to the extent of compensating for inadequate healing.

The textures in Architectural space relative smoothness or roughness of a surface texture is determined in two ways. Achieve acting & quality of power; arrange the texture must be higher degree of roughness. Use the rough materials have to be selected or some textures that read as rough are painted or printed tiny patterns that give the impression of a texture when it does not actually exist. In ancient buildings express their quality when use the rough stones, bricks, big timber planks .



Fig 38: selection of geographic location in use of harmonic colours—
Amaya Lake dambulla



Fig 39: Materialistic support for sense of healing - Bolder garden

2.5.3 Way of arrangement in Architectural elements - parallel to Apa, Prithivi (Water, Earth) elements related in Kapa dosha

Water and Earth combine to form the dosha **Kapha**. Similar to its elements, Kapha lends the *body cohesion*, stability and perfection.

In case of a complex human body, **earth** provides structure to the cell as it manifests itself in the solid structure - mass to the human body. The **water** element is responsible for binding all structures with each other.

The arrangement of Architectural elements according to Apa, Pathivi (Water, Earth) is significance in Kapha dosha. To achieve the healing environment, man's stability or perfection is important according to Kapha dosha. Consider the Architectural space related to above Ayurveda elements express the **quality of stable**. This space had a "weight" and solid. In relation to Ana element, the above qualities **blend with each other** and make the composition in Architectural space.

The above qualities can eliminate through Architecture when organize the architectural elements such as **Geometry, scale & proportion, colours, materials & textures, balance** etc.

Expression of solidity blending with each other can identified through the geometry by understood the language and grammar in Architecture. In ancient period the entire building complex building with natural environment such as mort or water bodies, pathways, trees & rocks etc. It has a scale & proportion as well as balance to enhance the spiritual quality.



Fig 40: Nature of the composition with sense of stability

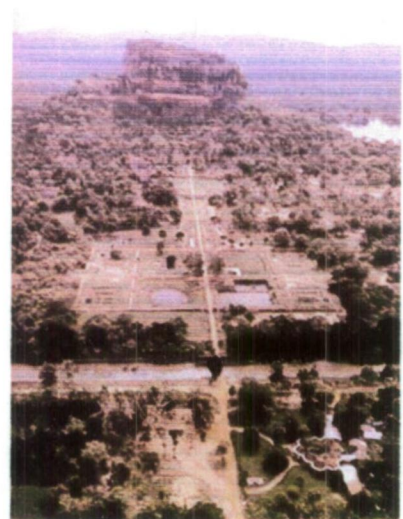


Fig 41: The combination of geometry and balance in ancient Sri Lankan Architecture

Consider the organization of form & shape makes feel us very soothing mind that manipulate the solid-void ratio with required particular proportion & scale.

The physical characteristic of colour is also made use of in raising or falling a space's illumination level. It helps to express the quality of **weight in that space**. It may create in dark colour backdrop and modify with light colours to feel the space blend with each other.

The material & textures are the major element to create the space solidity. Using rough materials and their size, shape and quantity balance the solidity of space. The texture of material repeated is use to blend the other spaces and enhance the solid quality.

Understanding the relationship with Architectural element and Ayurveda (The elements are directly not related to thridosha, because the effect of doshas different from each other needs some different spaces for particular treatment. So the entire space needs to create the whole essence or qualities in healing environment.



Fig 42: organization of form & shape in sensible space

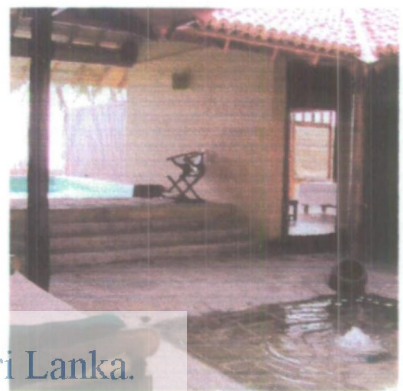


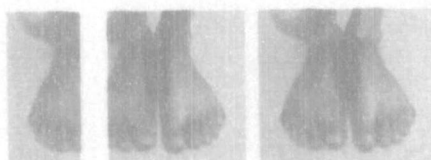
Fig 43: sensitivity of materials to blend with other spaces



Fig 44: use in Architectural details for enhance spatial healing



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CHAPTER THREE :
ORGANIZATION OF ARCHITECTURAL ELEMENTS ACCORDING TO THE
AYURVEDIC PRINCIPLES IN ARCHITECTURAL SPACE (SPA)

3.1 Brief Introduction to case study

Spa has been chosen as the specific function for the study. As a study was decided to limit to spa area that it is highlighted when related to Ayurveda in hotels. The categorization of selecting the spas based on the qualities in healing environment. The spa activities in **Ulpotha**, is blend with nature. Second selection of spa at **Amaya Hills**; specially focus to the treatment aspects. The final one in **Blue water** spa achieves the healing qualities in modern way under the professional consultancy.

According to this study, examine the way of achieving healing environment in selected spas in hotels. And concern about the elements of Ayurveda reflects some sort of qualities which related to create the Architectural space. The Spatial progression and the Architectural elements are observed to gain healing is essential.

Architectural product is a formation of spaces using tangible elements, and they are meaningfully created for different purposes, to house different activities. There are elements which want to be in equilibrium through out its whole experience. Building approach, entrance, path space relationship and form of the circulation spaces etc. in congruity between Architectural product and the spatial experience destroy the equilibrium or spatial progression of the building. This rhythmic kind of process is always creating ease & legible environment.



3.2 Case Study one – "Ulpotha" Village at Ebogama

3.2.1 Background of "Ulpotha" Village

Ulpotha has been a **pilgrimage site for thousands of years** and remains a retreat of tranquility in the heart of Sri Lanka. It is a beautiful private hide-away open to guests for part of the year; a place of total peace, where you can experience the warm, generous and gentle hospitality which Sri Lankans love to offer.

Ulpotha is a traditional working village situated from 22km away from Galgamuwa town and covered on the one side by low mountains and a **lotus ringed lake** and on the other by tiny bright green paddy fields. Now Ulpotha was the ancestral land belonging to regional chieftains under whose backing, a small manor house originally built a few hundred years ago, still stands on the property and has now been rebuilt. Late Mudiyanse Dissanayake was the founder & his concept was to maintaining the rituals and traditions of indigenous culture in Ulpotha. Guests are welcome to here and those who come will find a natural sanctuary of exceptional beauty where the main activity is simply relaxing in its remarkable atmosphere of peace and calm.

However, for those more purposeful in nature, Ayurvedic therapies and Yoga classes done as the ancient, holistic medical art.

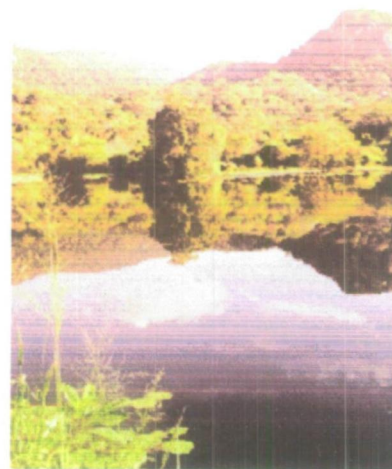


Fig 45: Ulpotha Lake, the climax in journey of healing

3.2.2 Ayurvedic treatment programme in “Ulpotha”

Ulpotha has recently introduced an exciting program of Ayurveda treatments since it possesses the ideal climate and environment for the practice of this deeply traditional art. Until recently, Ulpotha had offered non-specific and general native treatments such as steam and infused water baths. The main reason for the absence of Ayurveda in Ulpotha was that the founders wanted to wait until the right person crossed their path to carry out what is a very specialized therapeutic practice. Ayurveda does not rely purely on knowledge, but includes the spiritual and the intangible in a holistic approach to good health and healing.

Ulpotha is a particularly suitable place in which to undergo Ayurvedic treatment, as the food and the environment complement the therapies and serve to emphasize the holistic approach of Ayurveda itself. At present there are five different programme periods on offer in here, One week, ten day, two week, three week, and four week treatments. If a treatment programme is desired, Ayurvedic doctor will prepare a personalized detoxification and rejuvenation treatment plan for each individual. The doctor will get a sense of what imbalances are present, what type of body type is involved and which of the therapies described below need to be administered.

Ayurveda's programmes begin with detoxification therapies, which consist of preliminary and specialized elimination treatments. Preliminary treatments are called **oleation**, that consists of fomentation therapies which are **oil applications, massage, steam and medicinal bath therapies**. All of these are used to bring the body's energies into balance, once a balance is achieved; **nourishing therapies** are administered to maintain that balance. These rejuvenation treatments consist of traditional Ayurvedic remedies using organic ingredients.

3.2.3 Way of achieving healing Environment in the building

In Architectural point of view “**Ulpotha**” developed as an ancient village concept that include the village settlement, religious places & devale, paddy fields and chieftains house etc. The building can be perceived as a single composition which is composed of a series of spaces and has a spatial experience within the composition. The healing environment generate by the no: of compositions with the changing perspective as the spectator move along the spaces. This **spatial progression** conveys healing in mind and body.

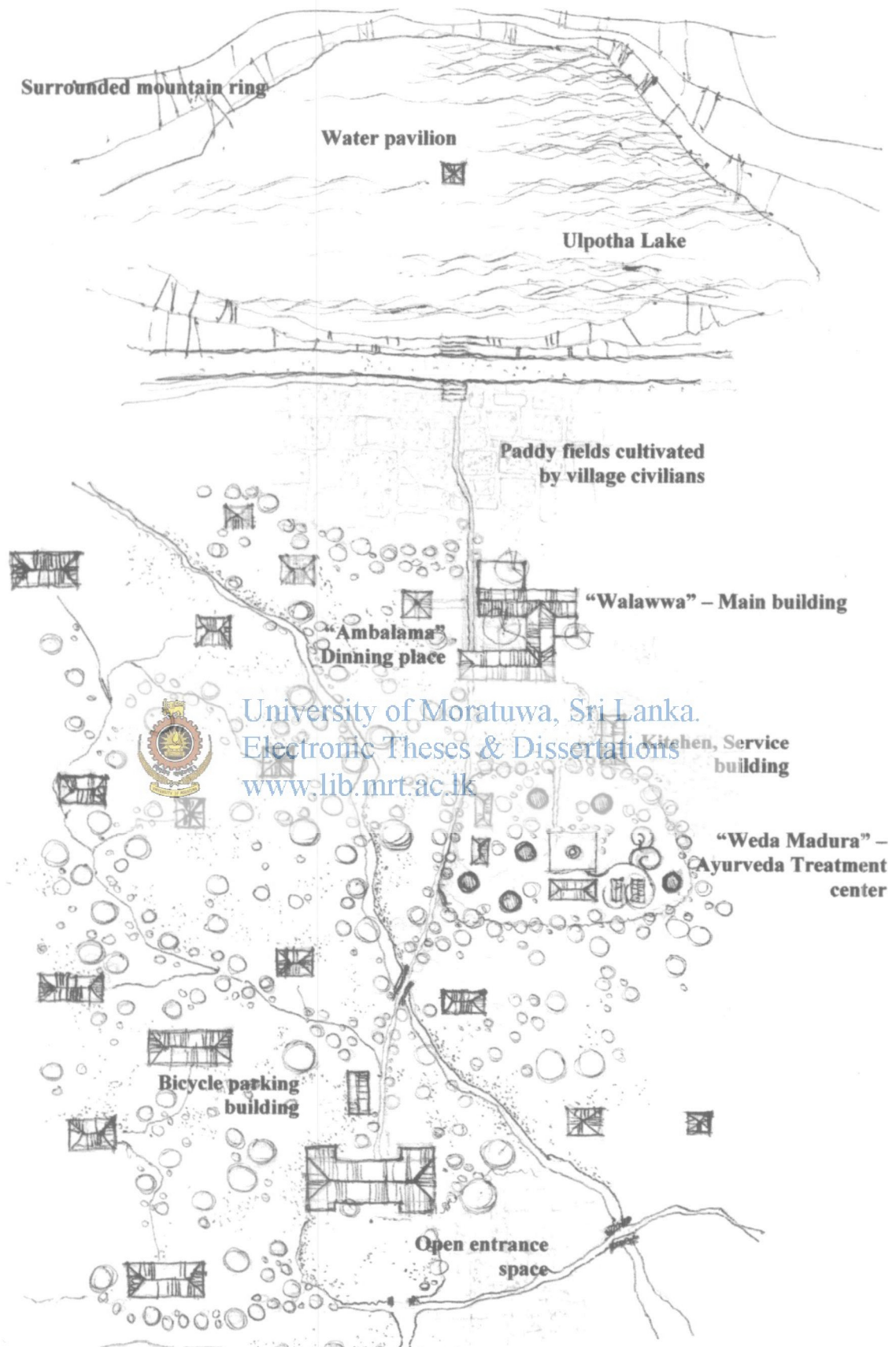


Fig 46: The journey of healing
Sketchy Layout of Ulpotha village

The spatial progression in here, the user move to next place when he senses it heals, otherwise he not moves. The base of vernacular Architecture applies in "Ulpotha" makes series of spatial progression & it may sense as a **"Journey of healing"**.

The movement of spaces that induces healing suggests a direction, a path an inclination to move long with experience the spaces that ultimately arrive to the climax of "Ulpotha Lake". That journey forms a curved main pathway with sand bed to enhance the sense of **"have entered"**.



Fig 47: "sense of Arrival"

The cottage type structures used as sweat rooms in totally open and that spread where along the main axis and small canal bank areas. Beyond that properly defined boundaries with **"Weda Madura"** – (Ayurvedic treatment center) can be seen. The main axis focuses in the chief's house – **"Walawwa"** in next and ultimately the Ulpotha Lake located that the journey becomes end with climax where the pavilion on the water.

One of the progressions happen in **"Weda Madura"** Ayurvedic center develops healing tradition according to Ayurveda and articulation of space organization according to the steps of Ayurvedic treatment. It may create natural organic forms and blend with existing environment. The entire composition enhances the "sense of privacy" and identifies two or three geometric forms of individual structures which make the composition.

Well defined main entrance from the walawwa side oriented to the main space in Ayurvedic center. The sense of entering will keep on changing in the pathway finished



Fig 48: Approach from the curved main axis



by brick patterns for the concentration of mind as well as physical healing through five senses. It focuses on the main space that defines the paved square area with full of green function as a relaxation space for patients to stay a while, before they transfer to next treatment.

Beyond that, focus to the main building for "pancha karma" treatment and it connects other spaces such as one for herbal steam bath facility, two for herbal bath facility, two for "poorva karma & massage facility and one for toilet facility areas connect by narrow organic pathways make it as a transitional space.

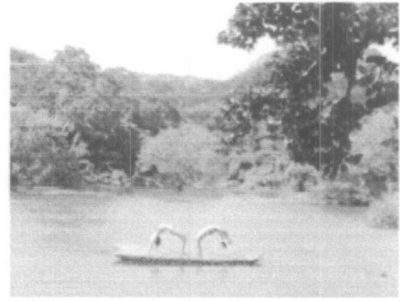


Fig 50: The journey becomes end at the Ulpotha Lake

3.2.4 Organization of Architectural elements to achieve healing Environment in the building

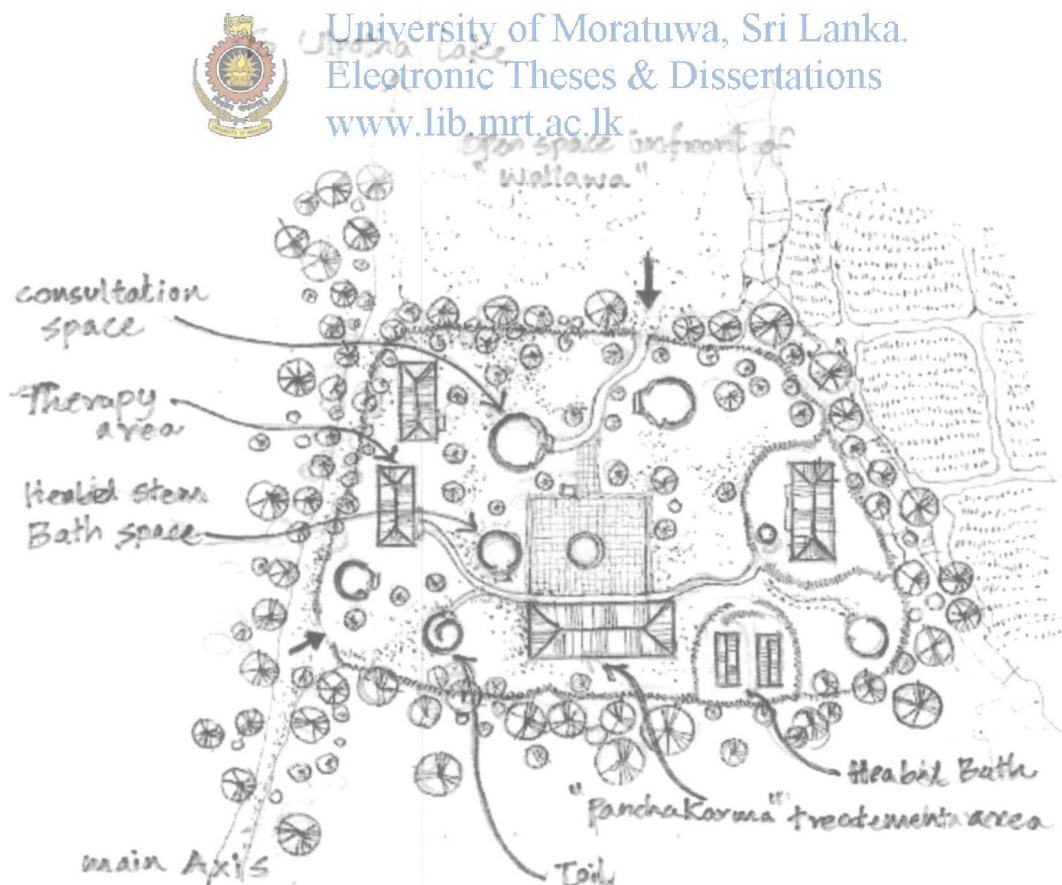


Fig 51: Sketchy Layout of "Weda Madura" – Ayurveda treatment center

The spatial experience preformed by the orchestration of Architectural elements used in the building. Ayurvedic treatment centre characterize by architectural elements according to their vernacular systems.

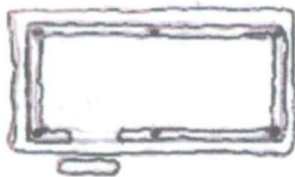
The context in Ulpotha, trees were planted, the lands were organically cultivated, traditional wattle and daub homes were built and it was brought gently back to a magical life. Restoration of traditional agricultural lifestyle, bio-diverse organic farming and reforestation happen in here to enhance the healing environment.

The main building for "**pancha karma**" is in rectangular form with radius corners and edge finished. Others are in circle shapes and some are seen in spiral shape arrangement. Couldn't identified the hexagon or octagon shapes in Ulpotha according to generators of healing environment but the shape structure where seen in the function of herbal steam bath.



Fig 52: The Character in Ayurveda treatment center in Ulpotha

Type 01-
Rectangular in shape



Type 02-
Circular in shape



Type 03-
Spiral shape



Fig 53: Identified different types of plan form

Colours and lighting are directly combined elements in healing environment that produce different meaning in relation to space by space. Most of the buildings are shape-up by the natural lighting that enhances the "**boundless effect**". Then the space is "**being part of nature**" and makes an opportunity to experience the natural light and the fresh air.



Fig 54: 3-Dimentional form of individual buildings with an identity

The balance of efficient spectrum lighting created by low pitch roof with gable-end form and organizes the interior volume efficiency sensible for healing using colors, materials and proportion. In the darkness "**Lantharuma**" act as the only lighting source and sometimes oil lamps are used. It gives a different meaning to the space. Yellow and warm color lighting effect makes the space "**Close-in**" and feel a "**Weight**" in the space. Colour constitutes variety of properties used in architecture to create appropriate qualities in this kind of environment. By the obtained qualities healing is achieved.

Considering the entire scheme in Ulpatha, as a whole it blends with the natural environment, but they were unable to manipulate emotions in space to space and ignored about the difference of inner and outer space when coloring.

The main building (Walamva) rendered certain level of orchestration of colour to give some meaning to the space. Mainly used are the warm colours such as red-violet, red-orange, orange, yellow-orange, yellow, yellow-orange. In some places cool colours such as green, blue-green, blue, blue-violet to enhance the spirit of the space.

Herbal bathing area and in the massage area a colourfull fabric canopy is on top that enhance the qualities related to the patient's dosha. And it is helped to define the space and improve mental concentration.

Architectural materials play a significant role in motivating our five senses. Materials used in Ulpotha, more oriented towards vernacular system. Done by wattle and daub construction, and with the use of cow-dung for floor rendering. Roof is done by using irregular shape timber sections and pillars with the natural quality

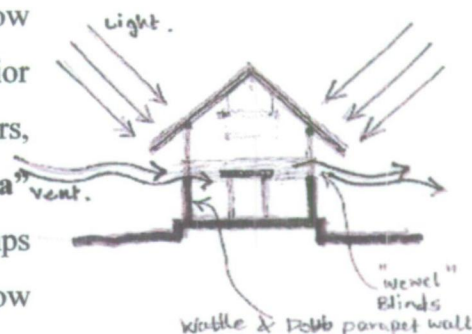


Fig 55: efficient spectrum natural lighting achieve by the form
Achieve by the form



Fig 56: warmth effect from colour in lighting



Fig 57: Make use the space according to user's dosha



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preserved. Equipment is totally made out of timber finish and Pathways are made out from sand beds, natural stones and bricks that gain a **"stable and solid quality"**. Recyclable dry coconut leaves use as a material to define the boundaries and some other spaces express the **"roughness quality with transparency"**.

No clearly identifiable Views and symbols are to be seen in Ayurveda treatment centre in Ulpotha. But most of the paintings symbolize the specific functions inside the buildings. Statues, antiques, ancient ruins located in some places symbolize orientation and sometimes may used for mental concentration.

Considering the entire complex and the Ayurvedic treatment centre, it feels the real Ayurveda and yoga within the natural environment. The combination of Ayurveda and natural environment develop the healing spaces in Ulpotha, in certain degree of level. Majority of spaces haven't designed according to ayurveda principles, but they achieve the sense of Ayurvedic spaces to a certain levels as a result of using vernacular architectural principles such as low scale proportion, natural materials, simple details, etc.

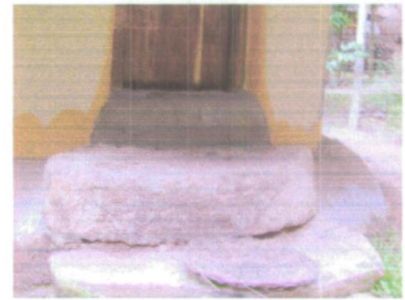
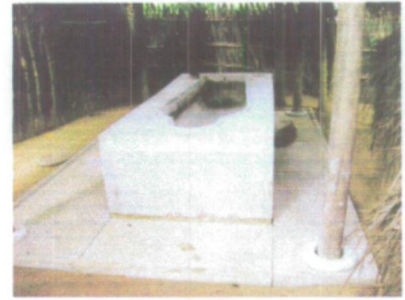


Fig 58: Detailing express the stable & solid quality



Fig 59: Material & texture support for the artifact

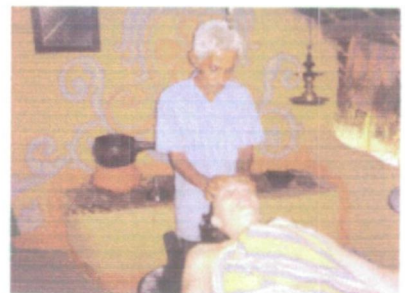


Fig 60: creation of paintings gives the pleasure feelings

3.3 Case Study two – “Amaya Hills” (formerly Le kandyan) at Kandy

3.3.1 Background of “Amaya Hills” resort

Amaya Hills (formerly known as Le Kandyan Hotel) rightly claims to be among the best of Sri Lanka's hotels. A cool retreat perched high above a city renowned as the most beautiful in Sri Lanka, **Architecture and details that recreate the ancient kingdom of Kandy.** Overlooking the forest covered hills of Heerassagala blessed with a panoramic view of the city and its surrounding hills. Amaya hills is located 7 Km from the heart of Kandy.

The resort rises from the foothills of the hill country in traditional Kandyan colours of red, yellow and black, while murals, flags and massive carved columns emphasise a rich historical past. Effort is made to provide a special Sri Lankan experience.



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3.3.2 Ayurvedic Spa at “Amaya Hills”

Amaya Hills offers a team spa therapists trained and led by the certified Ayurvedic specialist. The Ayurvedic spa's most popular attraction is the Herbal Body Treatment - a combination of three Ayurvedic treatments: **herbal oil body massage, herbal steam and herbal bath.** These and other body treatments can be booked individually or enjoyed as part of a Wellness Programme, While Ayurveda is gaining in popularity around the world, Amaya Hills give experience Ayurvedic treatments at own place, where they have been practiced for centuries.

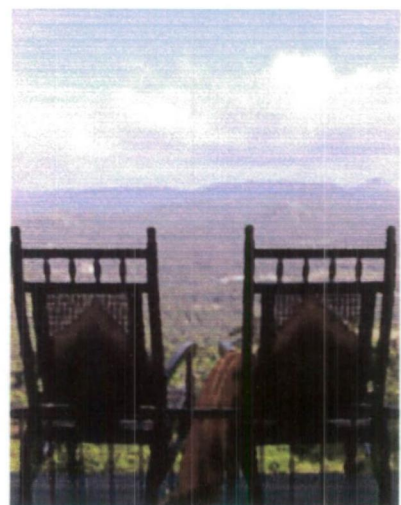


Fig 61: sense of healing in climax

The Amaya experience is a reflection of Sri Lankan culture. As Ayurvedic treatments are an integral science and art form of Sri Lanka, they are also integral to Amaya.

Treatments tailored to the individual, with techniques and herbal ingredients specifically chosen to match each person's body and lifestyle. A selection of some of the spa's most, there are several methods of treatment used.

Herbal Oil Body Treatment – oil body massage, herbal steam and herbal bath

Vashpa Sveda – herbal oil and steam treatment

Avagaha Sveda – rejuvenating herbal bath

Herbal Oil Head Treatment – head massage with vital point treatment

Vaktra Chikitsa – herbal facial treatment

Reflexology – foot massage treatments with whole body effects

An excellent Ayurvedic health centre offers traditional treatments intended to promote positive health, nourishment and inward balance. While the Ayurvedic Centre welcomes short-term visitors, the greatest results are seen in their comprehensive programmes which may last several days, or even several weeks. Through consultation the Ayurvedic doctor develops a full understanding of guest overall wellbeing and tailors a programme to meet their body's needs.

3.3.2 Way of achieving healing Environment in the building

Most of the guest disconnect their daily routine and find some different feelings in hotel environment that the healing limited to body or physical symptoms and mind. The journey of healing becomes successfully in array of spaces that flow in to another, making spatial relationship, organize and movement of spaces. In "Amaya Hills" the **spatial progression** till to the main entrance sense not only physical and mental healing. It moves in-depth of spiritual healing.

The creation of healing environment in commercial oriented hotel is different from others. But the location surrounded by Hanthana mountain ring and progression from Kandy Colombo road which facilitate healing environment and segregation from urban context. The language of Amaya Hills that the building should be express the kandyan culture and camouflage the entire natural environment by shaping their geometry, colours and textures, proportion and scale etc... It articulates the sense of physical healing as well as mental healing.

Beyond the main lobby do not sense the powerful spatial orchestration to enhance the healing quality in terms of a Hotel environment. The same result also take place before arrive the Ayurvedic spa centre in "Amaya Hills". It situate in hidden place at the pool level.



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3.3.4 Organization of Architectural elements to achieve healing Environment in the building

In the addition of the commercial values to Ayurvedic spa, it lost the pure ancient Ayurvedic treatments and qualities. The geometry of Ayurvedic spa is very monotonic and more close to **introverted quality** and do not see the organic environment. But this place can conductive to human interaction.

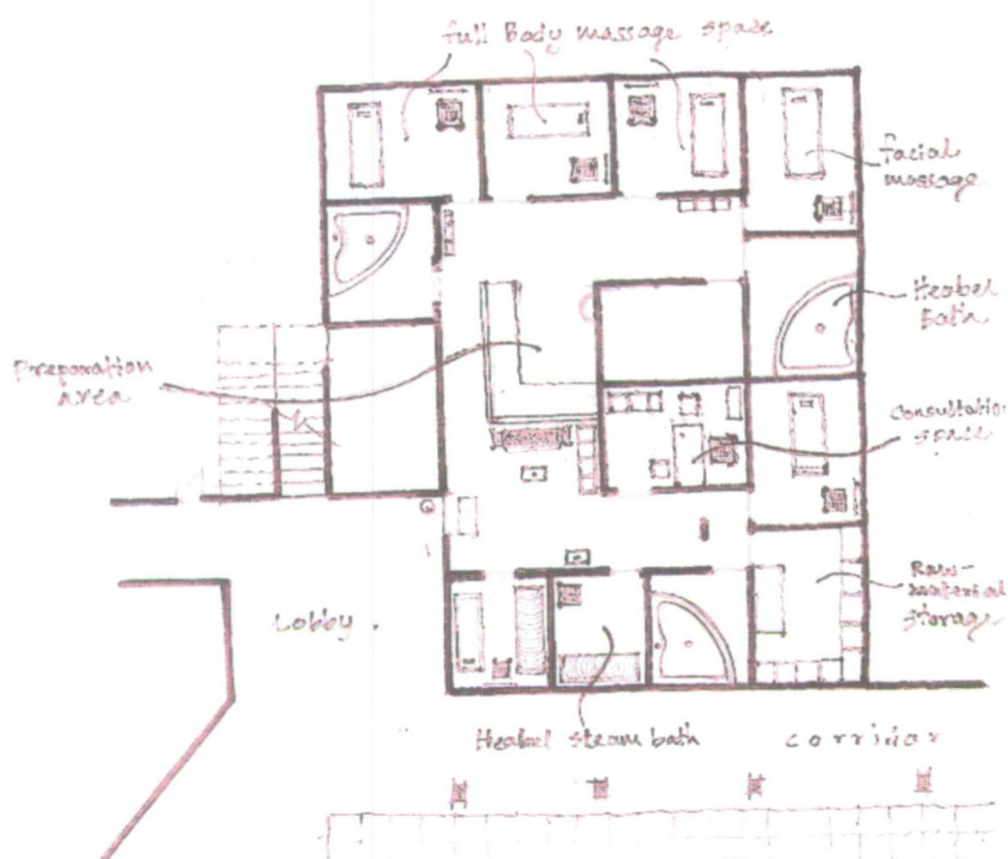
The most common forms of hexagon, octagons not in here and Fibonacci, spiral, circles, crescent, dome of shapes also not there. Conceder the geometry carefully it can be some sort of arrangement related to concept of "Badda sima prasada" in Polonnaruwa. But the point is it doesn't combine the natural environment within the approach of modern architecture.



Fig 62: Express the kandyan culture, conceal the natural environment through the spatial progression



Fig 63: healing consultation



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Fig 64: Healing space
in Ayurvedic spa center

The arrangement of function in Ayurvedic spa gives priority to the doctor's consultation. Other than that make separate spaces to adjust the specific functions such as five numbers of rooms for body massage & foot massage, facial, Shirodara etc... two rooms for herbal stem bath according to traditional system include variety of herbal medicines. Three rooms for herbal bathing create in modern way.

The combination of spaces loosed in this Ayurvedic spa and fall the "journey of healing". Therefore the qualities such as sense of boundless, free mind, nature and Ayurveda combination etc... go away. In case of the existing arrangement the indoor air is recycled and doesn't it fresh. Also not include the solar heating, solar cooing, ventilation

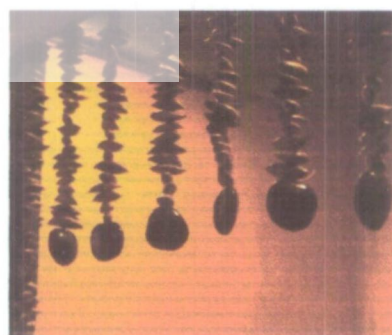


Fig 65: five senses with the
connection of mind, the healing
begins.....



Fig 66: Sensitivity of materials

system that the guest not arrive the optimum healing stages and health. the expression of "**weight**" the space create very dramatically in Amaya Hills Ayurvedic spa which feel comes from inner mind and body.

Direct exposure to earth energy from earth rendered walls make different feelings other than the hotel environment. The "**sense of power**" generate in this Ayurvedic spa and the space control by guest to make behavior according to Ayurveda.

The colours used to eliminate the above qualities with the help of low level lighting. Use minimum colours and its variations to modulate the spaces. Especially highlight warm colours render everywhere gives the **solidity and rough quality**.

This type of environment performance lighting donates from qualitative and quantitative aspects. The luminance level matches to Ayurvedic spa is low and make some emotional feelings before enter the treatments. The balance effective lighting with non-glare lighting fixtures used and the materials and textures helps to enhance it.

The qualities in Ayurveda respond by material state a significant role in here. Use rough and natural materials to feel the difference from other hotel spaces. Modify the interior by add certain materials to certain places. Wood is the common material in here that gives comfortable, stable, soft feelings. Other than that earth, concrete, rough dark tiles and fabrics use here. Especially use copper as a material for finish the edge line in medicine preparation

The degree of healing environment create by the above qualities when apply organic characters in proper manner.



Fig 67: Nature of the space expresses the power of healing



Fig 68: earth energy gives the solid & rough qualities



Fig 69: Nature of the space expresses the power of healing

The more significant aspect in Amaya Hills Ayurvedic spa applies the music therapy system (Ragadari music) to feel the spiritual quality.

The water spot with full of flowers makes pleasure symbol for every person who comes inside the Ayurvedic spa. The purpose of symbolize the natural environment by the white colour line sketchers to close the nature. The antiques place upper level of mirrors to concentrate the guest's mind before goes for treatment.

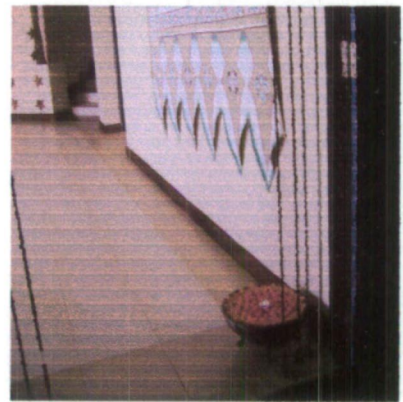


Fig 70: Symbolize the spiritual quality through the objects & location



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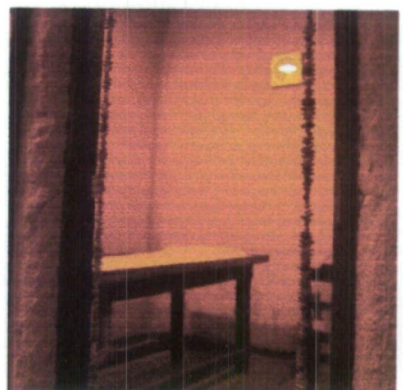
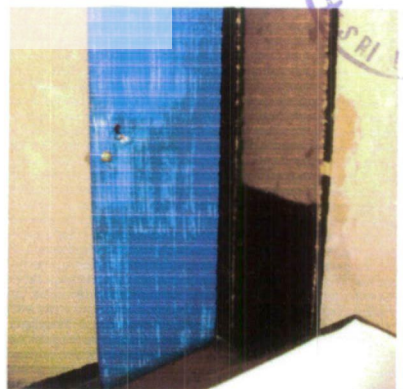


Fig 71: Nature of colour express the "weight" of the space

3.4 Case Study three – Blue water hotel & spa at Wadduwa

3.4.1 Background of – Blue water hotel

Blue Water is a four-star hotel with a youthful feel conveniently situated only 20 miles south of Colombo, in Wadduwa, gateway to the West coast. Designed by the reputed Sri Lankan **Architect, Geoffrey Bawa**, its main theme is the ambitious use of water, which gives the hotel its name.

If like water, adore Blue Water. Mini ponds, streams, fountains and waterways are everywhere - and water even winds through the hotel lobby. Blue Water is a medium sized 100 bed hotel located on a wide sandy beach facing the shimmering Indian Ocean. It has much of the style of a boutique but lacks the intimacy and homely feel. All guest rooms have spectacular sea views, the rolling emerald surf by day, giving way to amazing sunsets by night. The hotel stands amidst a cool cluster of coconut palms creating large shady gardens which incorporate cascading ponds and waterfalls, sounds just tempting you to seek out the large swimming pool and adjoining children's pool. Blue Water's swimming pool is one of the largest in the world, holding about five times the water normally found in a hotel pool.



Fig 72: cool cluster of coconut palms creating large shady gardens

3.4.2 Spa at Blue water hotel

Modify the spa activities to the modern world and it related to the boutique style as well as resort style hotel environment. It's unique to Blue water hotel by the treatment system and the Architecture.



Fig 73: "sense of entering "

3.4.3 Way of achieving healing Environment in the building

A work of Architecture is a comprehensive spatial organization consisting of a major space, intermediate space and transitional space. Their arrangement forms a spatial progression in Blue water spa with the sense of expressions.

The arrangement happens in the central axis to the focal point when in side the building. It feels movement forward psychologically. The movement in the rhythmic steps in the shallow pond makes the "**sense of Entering**".

Beyond that the space in between the pond and the building encourage the transitional quality in the progression. The narrow step path way with floor lighting space provide the "**sense of arrival**" and the angular entrance walls feel the depth of the space. The end of healing journey where in the center of the circular main space enrich the climax by the lighting spot forms upper level and give infinite view from sea side.



Fig 74: sense of arriving through the narrow ramp

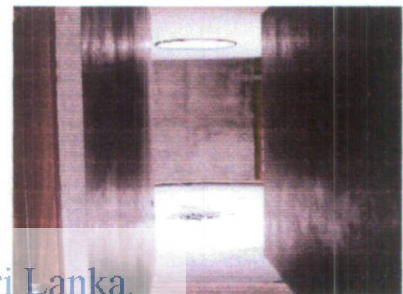


Fig 75: Approach to climax closer

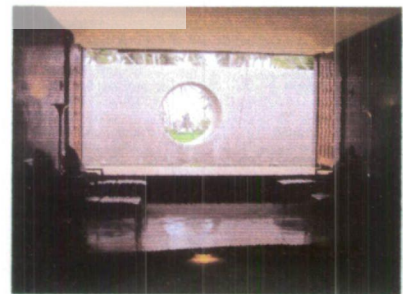


Fig 76: climax of infinite sea view

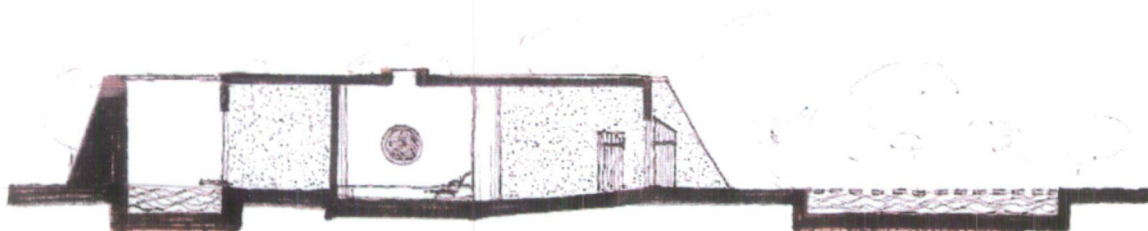
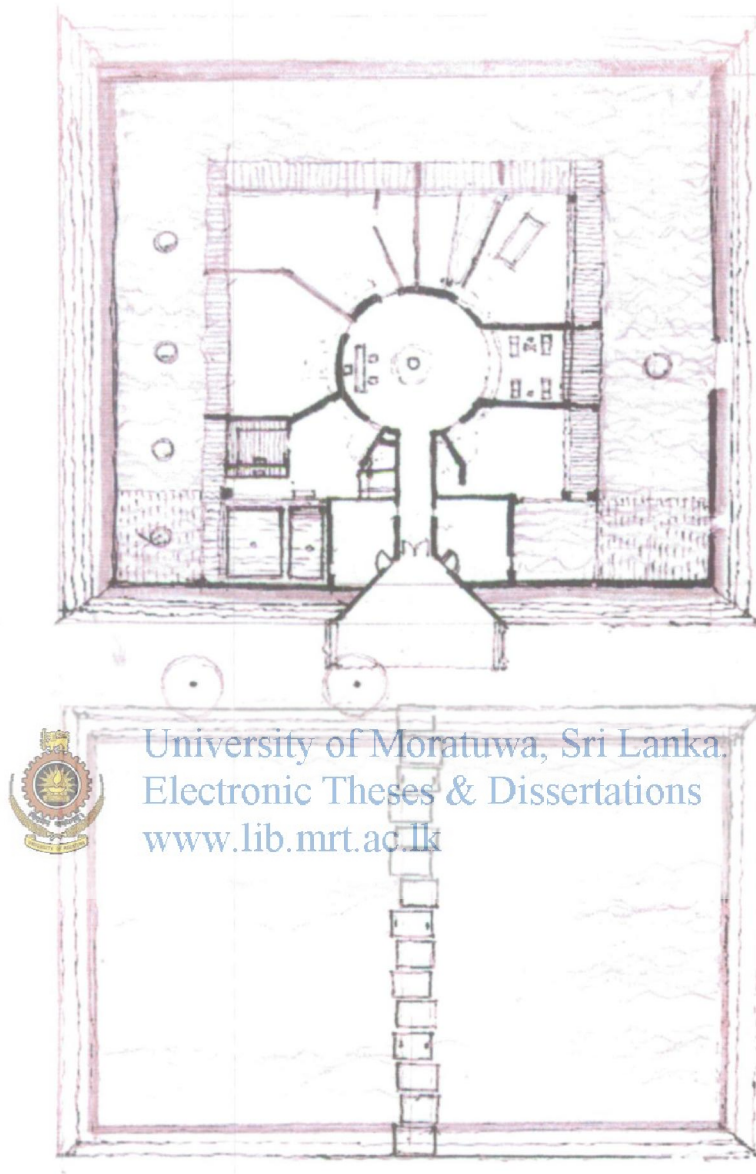


Fig 77: Sketchy section trough the Blue water spa

3.4.4 Organization of Architectural elements to achieve healing Environment in the building



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Fig 78: Sketchy layout of Blue water spa

The modern approach to Blue water spa according to the qualities related to Ayurvedic principles. The Architectural elements manipulate to achieve the above qualities and reach the sense of "Healing" in the space.

The geometry considered as an Architectural element that modify to sense the spiritual path from created by strong



Fig 79: Modern approach to create healing environment

axis. It recites the geometric organization of ancient landscape in Sigiriya. Identified the circular shape forms play in the building layout and the 3-D form except hexagon and octagon forms. Consider the layout all the spaces are focus to the main circular space with small water flower in the middle that remains our mind to Sigiriya.

In every massage & therapy area blends with the outer water patch and feel boundless quality that remains the most in the palace. It blend with the nature according to the qualities of Ayurveda elements with using of modern materials such as clear glass, light colour timber, white colour curtain etc.

The material aspect in Blue water spa used the modern ones such as steel, rough tiles, cement rendered walls and floors, different qualities of timber etc. The expression of material gives the rough and stable qualities to enhance to create healing environment. According to that it has various types of textures. It can be taken various effects in to spaces. In the main space, textures of material have being a grand rich quality using of rough tile with required scale and proportion. Textures of material in inner space have simply quality with natural effect by cement rendered finish.

Consider the lighting aspect; it collects by the geometry and the use of material that expression which helps to encourage the space and it has a sense of boundless quality. Artificial lighting provides with the identity of hotel and creates the space more sensible.

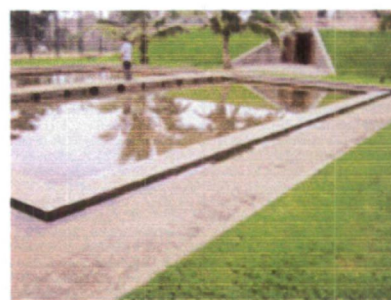


Fig 80: Ambience of the ancient landscape Architecture



Fig 81: Enlarge the space with combine the outer environment



Fig 82: Express the weight of the space

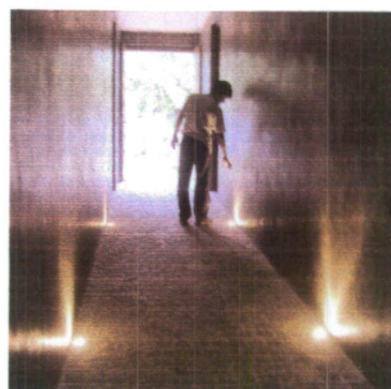


Fig 83: effect of lighting use as a transition from spaces

Colours are used in space to give different meanings in to the space and use the existing colour of materials for the creation. It can articulate appropriate meaning and mood in massage & bathing area express relaxation.

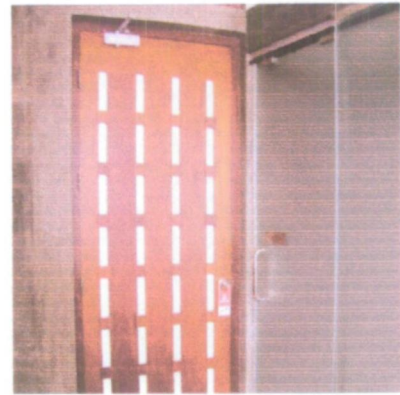


Fig 84: relationship from expressive qualities of modern material



Fig 85: Object using in healing environment



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3.5 Findings of the case studies

The examination of the case studies, healing environment is achieved by different degree of levels. And it is vary from person to person as well as space to space. The required healing environment creates strongly in "Ulpota" which placed their building according to the existing context. It may produce the journey of Healing than the Ayurvedic spa at "Amaya Hills". The spa at blue water consist the powerful healing axis to encourage the user's healing condition followed within the silent water patch.

The organization of Architectural element makes the healing conditions within the space. Majority of selected spaces are rendered by warm colours improve a "weight" in the space. Different from that blue water spa used the native colours of the materials and textures to achieve healing environment in modern perspective.

The power of healing produces in artistically and sensibly in Ayurvedic spa at Amaya Hills increasing it by the changing of colour and lighting parameters.

Comparison of the case studies about to use of plants, the Ulpotha create naturally within the existing natural context. It is the rare opportunity to living and makes part of the nature, in under the Ayurvedic conditions. In case of that the blue water spa camouflage within the green where in right side of the hotel the small bed of flower pot placed in inner water body as a need to symbolize the pleasure and harmony. Its make the wonderful environment.

Water using Architecture make the quality of healing and it provide the space sound, harmony, negative ion emission, temperature and humidity. Water is the element use to make some adjustments in creating healing environment in the blue water spa.



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In Architecture, the spaces and their elements are judged and compared with regard to their size in relation to man. Consider the physical scale and proportion in selected case studies, it is specific to there place and Architecture. **Low levels of proportion** have been in the "Ulpotha" and it helps to convey the degree of healing.

The scale and proportions of blue water spa is contract than other selected case studies. It related to the comfortable human scale and proportion in modern Architecture.

The combination of Architectural elements related from Ayurveda and elements related to spatial progression are develop the degree of level for every individuals and it may be effect the personal biers also.



Fig 86: Colour contribute the healing power

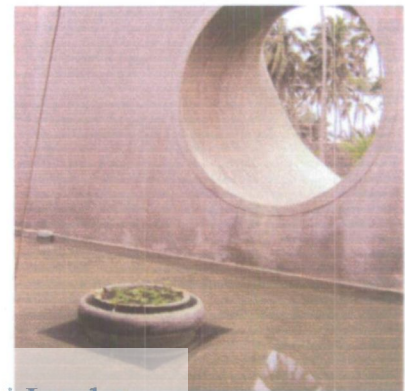


Fig 87: Nature of water as a need of healing environment

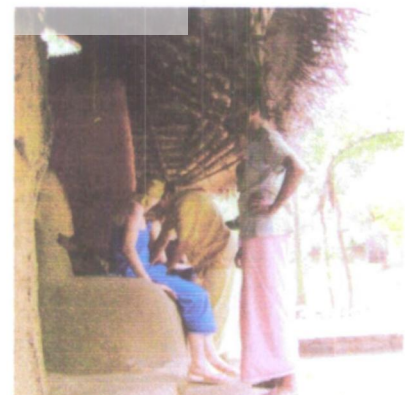


Fig 88: Identified Sri Lankan scale & proportion gain healing

CONCLUSION

Modern approach of the human health has a direction through Ayurveda, by doing a treatment, cure at the hotel's **Ayurveda** Centre or **spa** under competent medical supervision. Beyond that it has a need to heal, physical as well as psychological by the organization of spaces. In this study, analysis the relationship of Ayurveda for manipulates the spaces to achieve healing environment.

Ayurveda is a health system that has been practised in Sri Lanka and India for many thousand years. It relies solely on natural medicines. Ayurveda has helped even in cases that seemed hopeless, where western medicine had failed. This "**Science of Life**" is aimed at giving human beings better and longer life. Ayurveda is recommended to all those seeking inward balance or equilibrium, a long and health life and to all those who like to experience the fullness of life. Ayurveda is conducive to your health, provides you with new vital energy, and invigorates powers of resistance and self healing.

The degree of healing environment creates by the spatial qualities when apply organic characteristics such as Blended with nature, contract quality – roughness and smoothness quality, pure quality and aging quality as I identified.

According this study identified the expressive qualities such as transparent quality, sound ness of the space, "Boundless and lightness quality create by "**Blended with nature**" and brings sense of healing and maintenance of good health. Generate the quality of healing environment by sense of active, energetic quality and the space has a quality of "spiritual power". It may feel the "**contract quality - roughness and smoothness character**" in the space. Eg. The space finish with natural concrete walls and smooth cut cement floors express the power of the space. The "**Aging quality**" express in Ayurveda by the space has a quality of stable and "weight" of the space. Healing is a spatial quality that psyche of each individual should be achieved than the people will habit with ease. Consider the man and space with Ayurveda; it should not always blend with nature. The way it achieve by the understanding the **pure quality** in Ayurveda and translate it through Architecture. In the ancient time the qualities in Ayurveda bounded to the built form and their functional aspect.

Ex: Sweda treatment etc. There fore the combination result a good product with expressive qualities and moods comes from inner mind.

The sequence in Ayurvedic development in heals the mind repeat through the Architecture to achieve healing by the spatial progression and it is the person's own experience. So the progression of healing process should be concerned more important than the physical development. It should promote by the proper spatial qualities identified from Ayurveda to encourage the balance of mind which is healing of psyche.

When creating Architecture which specialized in spaces that achieve healing environment not according to the specific user in present. It may change the degree of healing person to person. It is critical for design healing centers specially user oriented. Importance to study the strategies of creating healing environment related to Ayurveda in urban context in future.

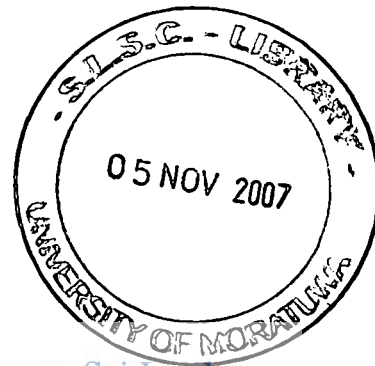


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BIBLIOGRAPHY

01. Allsop Bruce. A Modern Theory of Architecture. Routledge and Kegan Baul,
-- London. 1977
02. Ching F.D.K. Architecture form and space: order. New York, Van Nostrand
-- Reinhold Co.1979
03. Roger Scruton, The Aesthetics of Architecture, Methuen & co. Ltd. London, 1979
04. Ruddolf Arnheim, The Dynamics of Architectural Form. University of California
press, Berkely and Los Angeles, 1969
05. Benor, D.J. Healing Research, Vol. I, *Scientific* Validation of a Healing Revolution
-- Southfield, MI: Vision Publications, 2001.
06. Norberg Shultz. Genius Loci: Towards a Phenomenology of Architecture, Rissoo
-- International Publication Ltd, New York, 1980
07. Canter. D and Lee.T. Psychology and Build Environment, White friars' press, kent,
-- London, 1975
08. Norberg Shultz. Existence, space in Architecture, White friars' press, kent,
-- London, 1979
09. Anthony. Lowir. Temple in the house. (Finding the secread in every day
architecture), 1988
- 10 Zevi. Bruno. Architecture as space. Horizen Press, New York. 1957
- 11 Ashok Hajumdar. "Ayurceda: The ancient Indian science of healing". Macmillan
India Ltd, New Delhi, 1998

12. Dr. Uragoda C.G, A history of Medicine in Sri Lanka, Ministry of indigenous medicine ,Colombo, 1995
13. Dr. Abeysekara S.A Chandra, Traditional Medicine in Sri Lanka & Neighboring countries, NLDSB, 2006
14. Dr. Jayawardana R.S. (2005 - October). "Navayugaya" Sinhala Monthly Magazine. Colombo. Lake House Publication (pvt) Ltd.



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